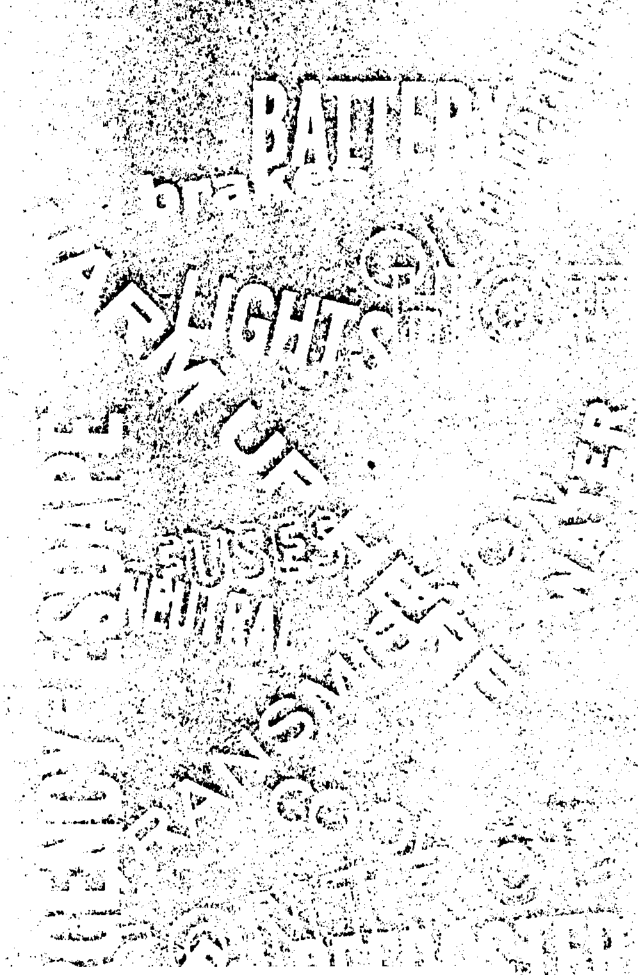
GREYHOUND

OPERATING MANUAL

P D 4501R



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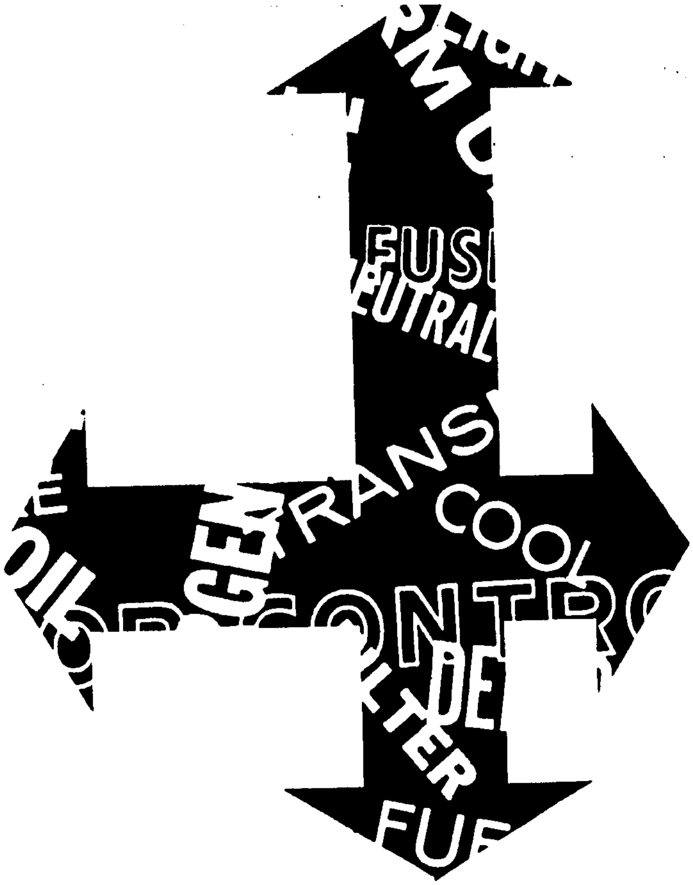
TO
THE
OPERATOR
OF THE
SUPER SCENICRUISER

The primary purpose of this booklet is to acquaint you with the important operating features of this coach. As you are a Scenicruiser operator, this manual will not attempt to teach you driving skill, rules of the road, or highway safety practices. Such phases of coach operation have already been acquired by you.

The knowledge of all of the driving and operating features of the Super Scenicruiser, and the practicing of the recommended procedures in this book will add to your skill as an operator. In addition, such knowledge will provide your passengers with greater comfort and safety.

Some of the items discussed may or may not be your direct responsibility, depending upon the regulations of your operating company. Regardless of the responsibility, you, as the operator, should study this booklet to obtain the best operating efficiency.



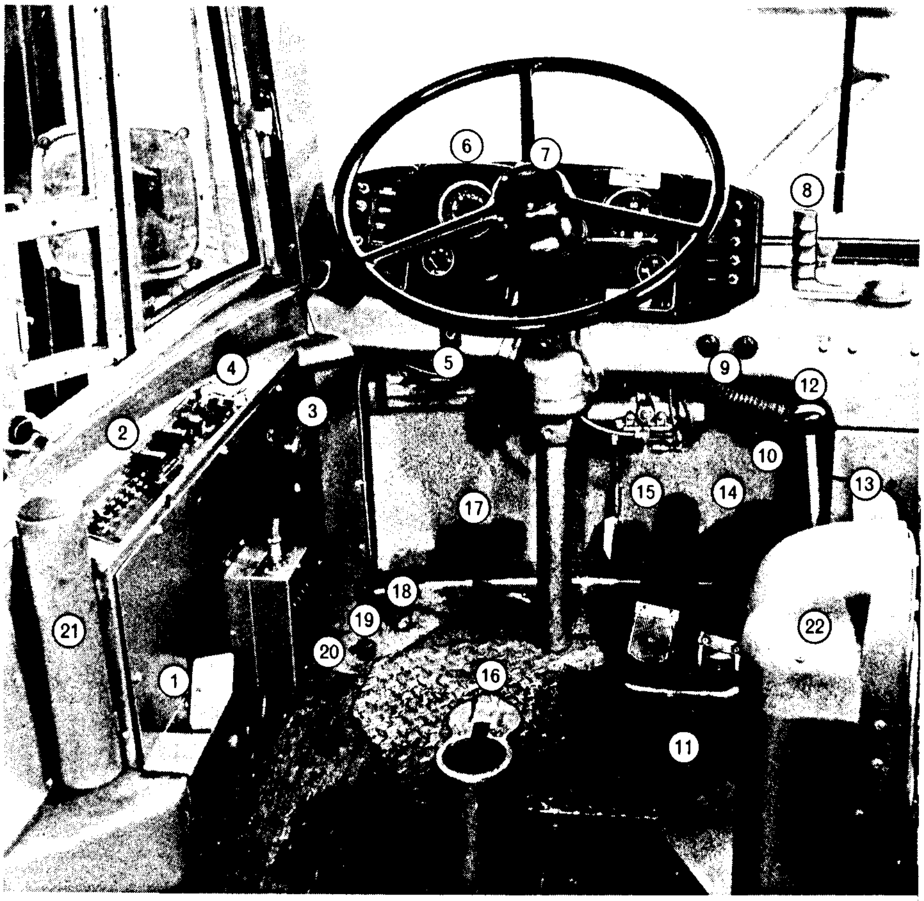
DRIVING CONTROLS

All controls, gauges, and switches used to normally drive the coach and to control lights, heating, and air conditioning are arranged in what is generally termed as the "Operator's Compartment." All of these controls are readily accessible to the operator while he is in the driver's seat. Any controls which the operator may have occasion to use under other than normal conditions are explained throughout the manual.

The purpose and location of the important driving controls are discussed on the next few pages. Study these and know their purpose and function. The balance of the manual describes step by step operations necessary to successfully operate the coach.

First—Know your controls

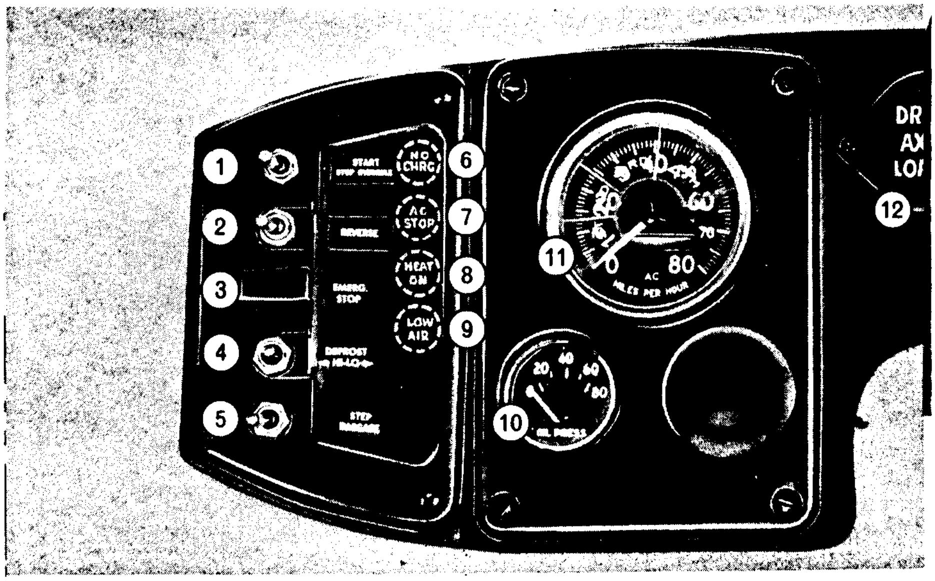
THE OPERATOR'S COMPARTMENT



Operator's Compartment and Driving Controls

Item	Name	See Page
1.	Operator's Heat and Cooling Control	25
2.	Control Panel	6
3.	P.A. Microphone	9
4.	Hand Brake	20
5.	Emergency Flasher Switch	44
6.	Switch and Gauge Panel	4 & 5
7.	Electric Horn Button	
8.	Front Door Control	28
9.	Windshield Wiper Controls	10
10.	Cowl Vent Control	26
11.	I.C.C. Switch	21
12.	Transmission Shift Lever	18
13.	Defroster Heater Control	10
14.	Accelerator Pedal	
15.	Service Brake Treadle	20
16.	Operator's Seat Pedestal	8
17.	Clutch Pedal	
18.	Head Lamp and Fog Lamp Selector	22
19.	Head Lamp Dimmer Switch	22
20.	Air Horn Button	
21.	Emergency Flares and Flags	
22.	Fire Extinguisher	

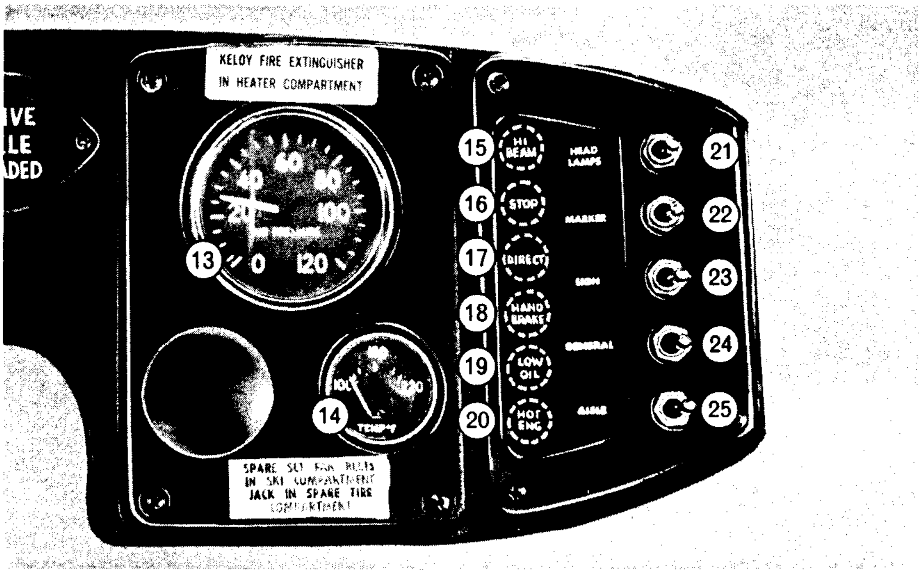
SWITCHES, GAUGES,



The switch and gauge panels

Item	Mark	Use
	Left Switch Panel	
1.	**"STARTER" and "OVER-RULE" Switch**	Used to start or over-rule engine
2.	**"REVERSE" Switch**	To reverse coach
3.	**"EMERG STOP" Switch**	To stop engine in emergency
4.	**"DEFROST" Switch**	Windshield defroster
5.	**"STEP" Switch**	Energizes front door light switch
6.	**"NO CHG" Tell-tale**	Lights when generator is not charging
7.	**"AC STOP" Tell-tale**	Lights when air conditioning system is not functioning correctly
8.	**"HEAT ON" Tell-tale**	Lights when heating valves are open; cycles on and off when heating valves open and close.
9.	**"LOW AIR" Tell-tale**	Lights when air pressure is low
	Left Gauge Panel	
10.	**"OIL PRESS" Gauge**	Indicates oil pressure of engine
11.	**"SPEEDOMETER"**	Indicates vehicle mph and accumulated mileage
12.	**"DRIVE AXLE LOADED" Tell-tale**	Lights when "Drive Axle Loaded" switch is turned on (Page 6)

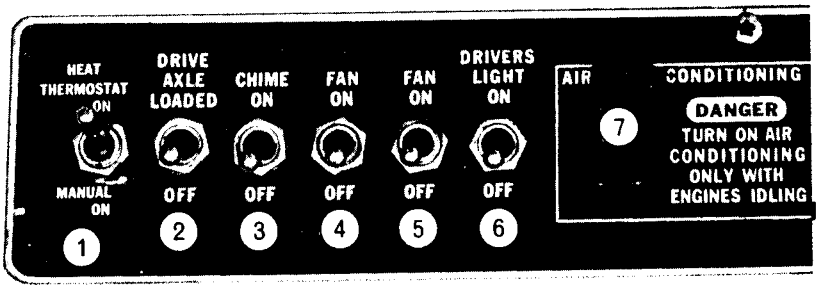
AND TELL-TALE LIGHTS



are directly in front of operator

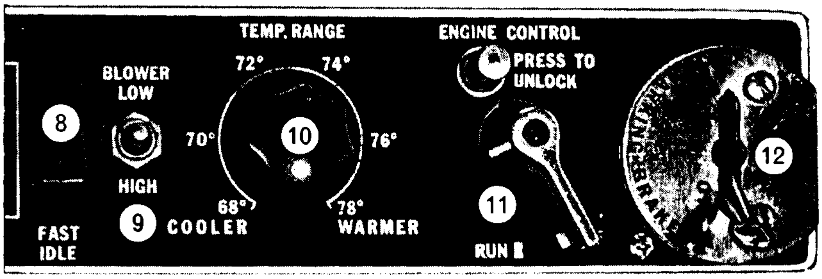
Item	Mark	Use
	Right Gauge Panel	
13.	"AIR PRESSURE" Gauge	Indicates air pressure in system
14.	"TEMP °F" Gauge	Indicates temperature of engine cooling system
	Right Switch Panel	
15.	"HI-BEAM" Tell-tale	Lights when headlight high beam is used
16.	"STOP" Tell-tale	Lights when service brakes are applied
17.	"DIRECT" Tell-tale	Lights when directional signal is used
18.	"HAND BRAKE" Tell-tale	Lights when transmission lever is placed into 1st with hand brake applied
19.	"LOW OIL" Tell-tale	Lights when oil pressure in engine is low
20.	"HOT ENG." Tell-tale	Lights when engine cooling system temperature is high
21.	"HEAD LAMPS" Switch	Controls headlights
22.	"MARKER" Switch	Controls lights as explained on Page 23
23.	"SIGN" Switch	Controls lights as explained on Page 23
24.	"GENERAL" Switch	Controls lights as explained on Page 23
25.	"AISLE" Switch	Controls lights as explained on Page 23

THE CONTROL PANEL



The control panel is to the left of the operator

Item	Mark	Controls	See Page
1.	"THERMOSTAT CONTROL"	Coach thermostat operation	25
2.	"DRIVE AXLE LOADED"	Controls Air Suspension Load Distribution Valves	19
3.	"CHIME"	Activates Passenger Signal Chime	
4.	"FAN"	Driver's Fan	10
5.	"FAN"	Windshield Fan	10
6.	"DRIVER'S LIGHT"	Driver's Light Just Above Operator	22
7.	"AIR CONDITIONING"	Used With Air Conditioning	25
8.	"FAST IDLE"	For Running Engine at Fast Idle	11
9.	"BLOWER"	Used with Heating and Air Conditioning	25
10.	"TEMP. RANGE"	Used with Heating and Air Conditioning	25
11.	"ENGINE CONTROL"	Used When Operating Engine	11
12.	"HAND BRAKE"	Applies hand brake	20

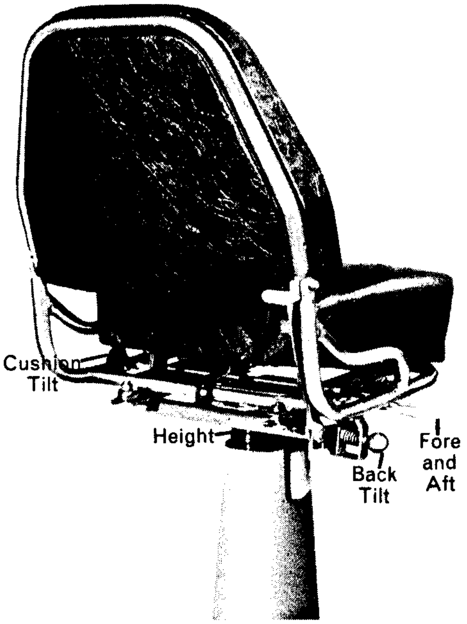


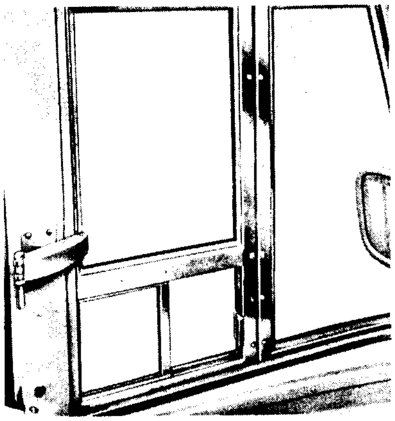
OPERATING ALARM SYSTEMS

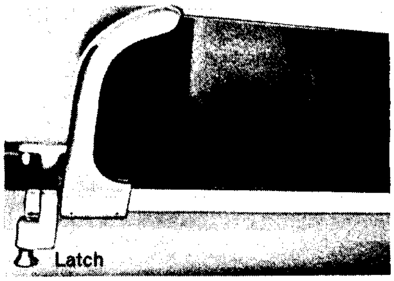
This coach is equipped with alarm systems which instantly signal various abnormal conditions by means of tell-tale lights and buzzers. The tell-tale lights, mounted in right and left switch panels (pages 4 and 5), and on control panel at left of operator, illuminate and display name of condition when condition occurs. When one of the lights illuminate, an alarm buzzer sounds (except with generator "NO CHG"). Detailed information on the alarm systems as well as necessary actions to take are outlined in applicable sections of this manual as follows:

ENGINE ALARM	Tell-tales "LOW OIL" and "HOT ENG." Refer to Page 15.
AIR PRESSURE ALARM	Tell-tale "LOW AIR." Refer to Page 14.
HAND BRAKE ALARM	Tell-tale "HAND BRAKE." Refer to Page 20.
GENERATOR NO CHARGE	Tell-tale "NO CHG." Refer to Page 44.
AIR CONDITIONING ALARM	Tell-tale "AC STOP." Refer to Page 25.

FOR THE







OPERATOR'S SEAT

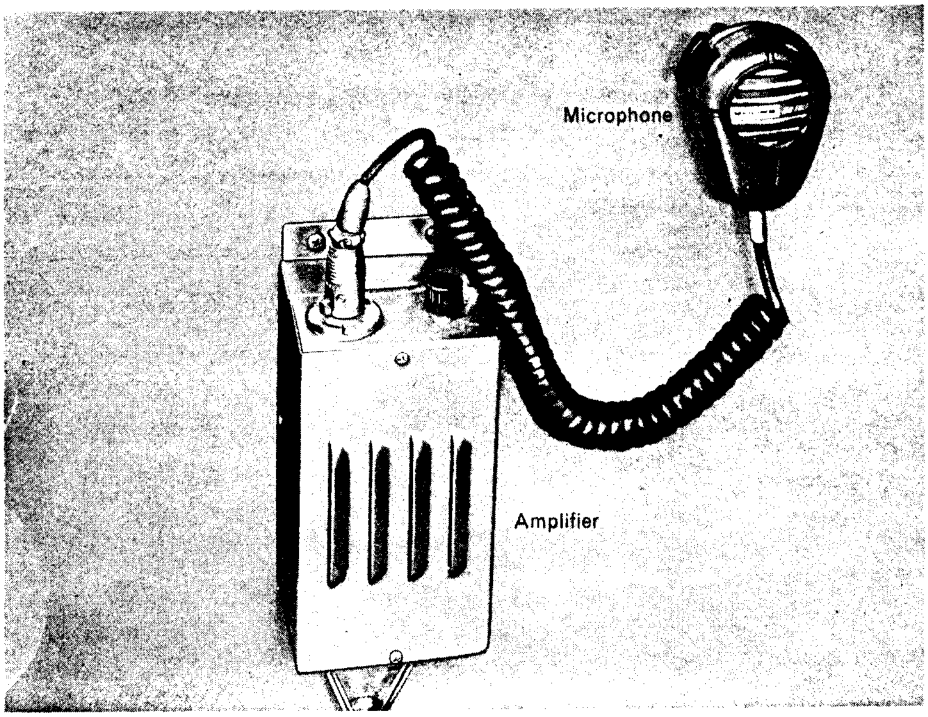
Operator's seat may be moved fore and aft by moving lever at right to rear to release seat. When seat is positioned, release lever. Raise seat by grasping seat frame and pulling upward. To lower, raise completely, then lower.

Seat cushion may be tilted by turning knob at left to position seat at desired angle.

The seat back may be tilted forward and back by pulling out knob at right to release from notches. Release knob to engage a notch when back is positioned.

OPERATOR'S WINDOW

The forward half and the rear-ward half of operator's window are hinged in the center. Each window half is held shut with a latch. Each half is positioned open with individual operating levers. The lower part of rear window will slide to the rear to permit hand signals, etc.



P. A. SYSTEM CONTROL

Two controls located on closure panel at left of operator are used to operate the P.A. system. The on-off control button is located on the microphone and the volume control knob is located on the amplifier box. Press downward on microphone button to turn system on. Releasing button turns system off. To raise the volume, turn volume control knob clockwise. Turning knob counterclockwise lowers volume.

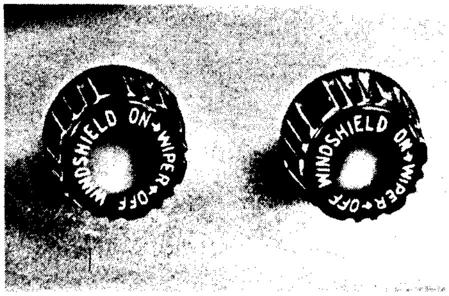
Check operation of system and set volume control prior to making run.

WINDSHIELD SUN VISORS

The windshield left sun visor can be positioned manually by the operator. The right sun visor has a spring-loaded latch at the left side as shown in illustration. Pull latch button down and then position visor. When latch button is released, visor is locked into position.

WINDSHIELD WIPERS

Two windshield wiper control knobs are mounted directly under right portion of instrument panel in front of driver (page 3). Left knob controls wiper on left half of windshield, while right knob operates right wiper.



To operate either wiper, turn knob clockwise to degree of blade speed desired. To stop wiper, turn knob counterclockwise.

Windshield blades should not operate over 140 strokes per minute over thoroughly wet glass (preferably 120 strokes). If blades operate at excessive speed or too slow, report condition for adjustment.

WINDSHIELD DEFROSTER

Windshield defroster fan is controlled by three-position toggle switch marked "DEFROST" on left switch panel in front of operator (page 4). Fan is stopped with switch lever straight out. With switch positioned toward "HI," fan will operate at full speed. With switch toward "LO," fan will operate at low speed. Air is directed over surface of windshield through openings in ledge.

A small fan is used to direct air on windshield in front of operator. Right switch marked "FAN" on control panel at left of operator (item 5, page 6) controls operation of the windshield fan. Left switch marked "FAN" (item 4, page 6) controls fan above driver's window.

When defrosting, outside air should be admitted into defroster heater compartment. Push cowl vent control (10, page 3) completely forward to full-open postion. DO NOT POSITION CONTROL PART WAY.

Temperature of defrosting air can be regulated by defroster heater control (13, page 3). NOTE: Excessive use of defroster will cause high temperature in lower deck, thereby satisfying the thermostat and leaving the upper deck area cold.

ENGINE OPERATION

This coach is equipped with one engine mounted at rear of coach. In case of emergency, call nearest supervisor.

Controls necessary to start and stop engine at the front are mounted on the control panel at left of operator, and switch and gauge panels at front of operator. These controls are:

"**ENGINE CONTROL**" switch on control panel (page 4). This switch must be positioned to "RUN" when starting and operating engine. Positioning the switch to "OFF" stops engine. The lock button, just above the switch, must be held down while moving switch lever from one position to the other.

"**STARTER**" switch on left switch panel (page 4). This switch is "momentary-on" type and is used to engage starter on engine. The lever must be held to the right to engage starter. When lever is released, the switch returns to off position.

"**EMERG STOP**" switch on left switch panel (page 4). This switch is a "momentary-on" type and is used to stop engine in the event engine cannot be stopped by engine control switch. A hinged guard is over the switch when not in use, and must be placed in raised position to use the switch. The lever must be held to the left to activate emergency stop. When lever is released, the switch returns to off position. Use of switch and resetting of the engine stop mechanism are explained later.

GAUGES AND TELL-TALE LIGHTS. The engine has an oil pressure and temperature gauge. "LOW OIL" or "HOT ENG." tell-tale in right switch panel illuminates and buzzer sounds when low oil pressure or hot engine condition exists in engine.

> **NOTE: To overrule the safety control relay action on the engine when "LOW OIL" or "HOT ENG." tell-tale lights, "STARTER and OVER-RULE" switch should be held "ON." Coach may then be moved off highway or out of danger ONLY.**

STARTING THE ENGINE

The operator must follow procedures in the sequence outlined.

ONE

Place hand brake switch in "ON" position.

TWO

Transmission shift lever must be in neutral.

THREE

Air conditioning switch on panel at left of driver must be in "OFF" position. (Refer to Page 25.)

FOUR

Turn engine control switch lever to "RUN" position.

> NOTE: When engine control switch is placed into "RUN" position, "LOW AIR" tell-tale will light and buzzer sound if air pressure is below 55-60 pounds, and "NO CHG" tell-tale will also light until engine is started.

FIVE

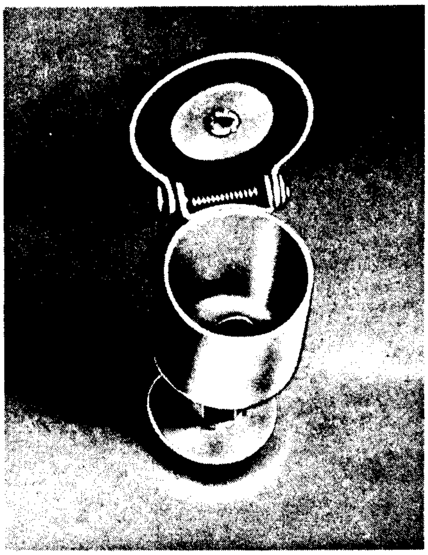
Hold "STARTER" switch to right to engage starter. Release the starter switch lever the instant the engine starts. **Accelerate the engine about one-third throttle.**

CAUTION: Do not engage starter longer than 15 seconds continuously. If engine does not start at the first try, wait 10 to 15 seconds before second attempt. Release starter switch the instant the engine starts.

SIX

Refer to "EMERGENCY CONDITIONS" on page 42 for instructions regarding starting engine at rear.

COLD WEATHER STARTING



Coaches are equipped with a cold weather starting fluid cup. When temperature is below 35°F., it may be necessary to use a starting fluid. This practice should be avoided unless absolutely necessary. If necessary to use starting fluid, use one 7 cc. capsule during above-zero temperature, or two 7 cc. capsules if temperature is below zero.

To use the capsule, raise the cover of the small cup on the blower intake manifold and force the capsule down onto the pointed tube in the cup. Squeeze the capsule dry, remove from cup and discard, and allow the spring-loaded cover to shut tightly. Start engine by the usual method.

FIRE WARNING

Starting fluid used in capsules is inflammable, toxic, and possesses anesthetic properties. Starting capsules should be stored in accordance with local fire regulations. Keep capsules away from open fire. NO SMOKING while using starting fluid capsules to start engine.

DURING OPERATION

WARM-UP

Place "FAST IDLE" switch (8, page 6) in "ON" position to run engine at fast idle during warm-up. During engine warm-up and during engine operation, observe the switch and gauge panels at frequent intervals. The gauges and tell-tale lights indicate normal and abnormal operation of the engine. The margin of safety in the gauges and tell-tale lights is enough to warn the operator of trouble before any serious damage occurs.

AIR PRESSURE

The air pressure on these vehicles is very important. Besides the brake and air suspension system, many other systems of the vehicle depend upon proper air pressure.

During warm-up, the "LOW AIR" tell-tale will light and buzzer will sound until air pressure is built up to 55-60 pounds. Do not move coach until air pressure is at least 70 pounds to assure safe braking. Place "FAST IDLE" switch (8, page 6) in "ON" position to run engine at fast idle while building up air pressure. **Do not use over one-third throttle to build up pressure.**

If during operation, the tell-tale "LOW AIR" lights and buzzer sounds indicating low air pressure, **stop the coach as quickly as possible and determine and correct cause of low pressure before proceeding.**

TEMPERATURE GAUGE

The engine has a temperature gauge mounted in right gauge panel. Efficient operating temperature range is 160°F to 180°F (preferably 180°F). This temperature range should be maintained under all operating conditions. Avoid moving coach, if conditions permit, until temperature is in 140°F range. If engine overheats (212°F), "HOT ENG." tell-tale will light and buzzer will sound, and safety control relay will stop engine. Refer to explanation under "Engine Alarm System" on next page.

ENGINE OIL PRESSURE

The engine has an oil pressure gauge mounted in left gauge panel. Consistency of cold oil may cause a slight rise in the pressure readings on the gauges. As engine warms up, pressure will recede to normal.

Normal readings on each gauge with engine hot are: Idling—4 lbs. minimum: Governed speed—25 lbs. minimum. An engine must not be operated when oil pressure falls below 25 lbs. at governed speed under full load. If pressure in an engine falls below 3 lbs., the "LOW OIL" tell-tale will light and buzzer will sound and safety control relay will stop engine. Refer to explanation under "Engine Alarm System" on this page.

GENERATOR CHARGING

The tell-tale marked "NO CHG" on left switch panel illuminates when generating system is not charging. When the engine control switch is turned to "RUN" position preparatory to starting engine, the tell-tale will illuminate and remain lighted until engine is started. When engine is started, the tell-tale will go out if circuit is functioning correctly. Refer to page 44 for action to be taken if tell-tale lights during operation.

Get the "INSTRUMENT BOARD HABIT"
—It's a good practice.

ENGINE ALARM SYSTEM

The engine is equipped with its own alarm units, to signal low oil pressure and high engine temperature. "LOW OIL" and "HOT ENG." tell-tales are mounted on the right-hand switch panel (page 5). In addition, an alarm buzzer sounds when either condition occurs. The safety control relay system acts to shut off engine when one of the abnormal conditions occurs. After the "LOW OIL" or "HOT ENG." tell-tale comes on and buzzer sounds the safety control relay alarm system shuts off the engine.

The safety control relay alarm action can be over-ruled, if necessary, by holding the "Starter and Over-rule" switch "ON," permitting further movement of coach to safety. Under no condition should engine be run after point of safety is reached, or restarted until abnormal condition is corrected. Refer to "Emergency Conditions" on page 44.

ENGINE SPEEDS

During engine warm-up, increase engine speed to a fast idle (approx. one-third throttle). Avoid unnecessary idling. If necessary to run engine for periods longer than normal traffic or passenger stops, run engine at a fast idle by placing "FAST IDLE" switch (8, page 6) in "ON" position.

NOTE: When air conditioning system is operating with coach standing, place "FAST IDLE" switch in "ON" position, This causes engine to run at fast idle to provide cooling, and automatically applies brakes on trailing rear axle.

The most satisfactory and economical operation ot the engine will be obtained by selecting the transmission gear speed that will permit engine to maintain near governed speeds at full throttle. Do not use full throttle when engine rpm is below two-thirds governed speed. Avoid lugging the engine. Select the proper transmission gear. **Decal on speedometer face indicates correct gear combinations to be used in various speed ranges (see page 4).**

STOPPING ENGINE

ONE.

Place hand brake switch in "ON" position, shift transmission into neutral, and place air conditioning control switch in "OFF" position.

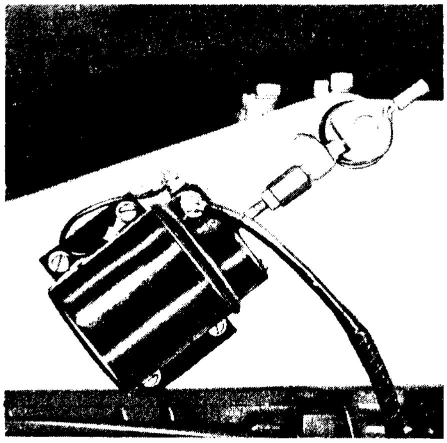
TWO.

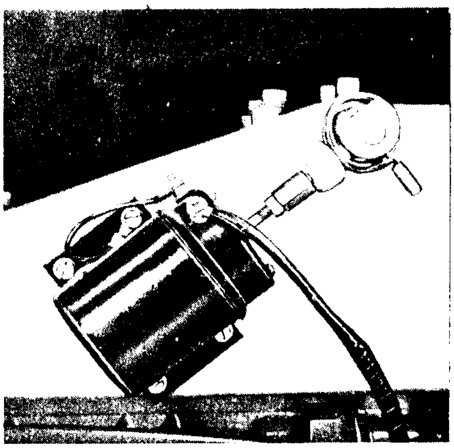
Idle engine for about 30 seconds; then place engine control switch into "OFF" position. This will stop engine.

THREE.

Always place transmission shift lever into neutral and place hand brake switch in "ON."

ENGINE EMERGENCY STOP


Run Position


Stop Position

The switch marked "EMERG STOP" on left switch panel is used only as an emergency measure in the event engine fails to stop when engine control switch is placed into "OFF" position. The emergency stop switch is a momentary-on type. Guard over switch must be pulled out to expose switch. When lever is held to the left to "ON" position, a solenoid releases cam on air choke valve, permitting valve to close, thus shutting off air supply to engine. An additional emergency stop switch is provided at rear of vehicle (page 42).

RESETTING EMERGENCY STOP

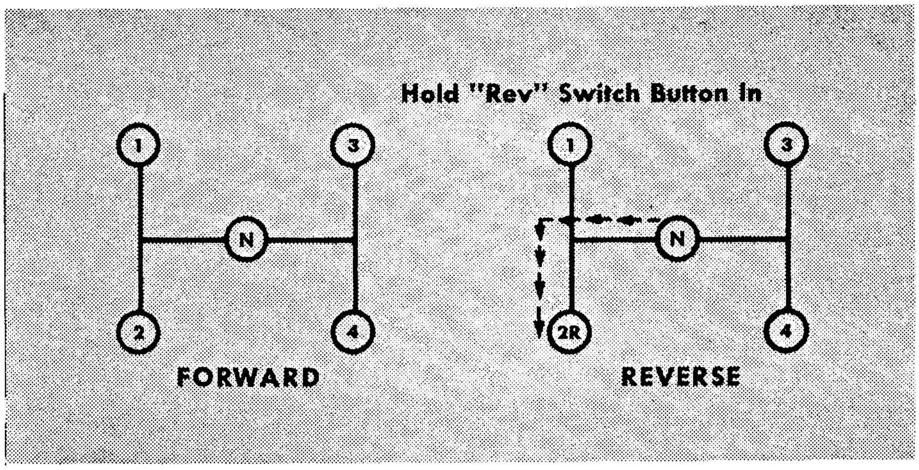
When "EMERG STOP" switch (either front or rear) has been used to stop engine, the choke valve must be manually reset at the engine at the rear. Open rear engine door (page 39). Reset emergency stop by turning cam in a clockwise direction until shoulder on cam engages solenoid plunger.

CAUTION. Use emergency stop ONLY in emergency. Do not use for normal stopping of engine. Do not restart engine until reason for loss of control has been determined and corrected.

In the event any abnormal condition NOT indicated by the alarm system should occur, stop coach immediately and investigate.

USE OF TRANSMISSION

Transmission has four forward speeds and one reverse. Shift is made into the various forward speeds with a conventional shift lever. Reverse gear is obtained by using an electric solenoid in conjunction with the shift lever. Solenoid is controlled by a "REV" (reverse) switch on switch panel.



UPSHIFTING

Double-clutching method is recommended when shifting gears. Always start vehicle moving in 1st gear and progressively shift to 2nd, 3rd, and 4th; do not skip gears. Remain in each gear until engine nears governed speed before shifting into the next higher gear.

DOWNSHIFTING

Always shift into next lower gear before the engine starts to lug. Use the double-clutching method of shifting. Make use of lower gears going up and down grades, when on ice, in snow, or in mud.

Use the same gear to go down a grade as would be used to go up the same grade. Bear in mind that the Diesel engine is an effective brake in checking vehicle speed when going down a grade. Braking effect of the engine increases with its speed; however, the maximum engine speed must not exceed its governed speed.

REVERSING

To shift into reverse gear, stop coach completely. Depress clutch pedal and, while holding the "Reverse" switch in the "On" position, move shift lever into the second gear position.

To shift out of reverse gear, stop coach completely. With clutch pedal depressed, move gear shift lever into the neutral position.

It is not necessary to use the solenoid switch when shifting out of reverse.

CAUTION

Solenoid switch should only be used when gear shift lever is in neutral position, otherwise possible locking of gears may result.

REAR AXLE LOAD DISTRIBUTION

"DRIVE AXLE LOADED" switch on control panel to left of operator (page 6) provides a means of transferring additional load to driving axle when additional driving traction is required. When switch lever is moved upward, circuit is completed to two solenoid valves which exhaust part of the air pressure out of the trailing axle air suspension. This places additional load on driving axle, providing increased traction. Large telltale between gauge panels (pages 4 and 5) illuminates when switch is turned on. **This system should be used only in case of emergency when increased traction is required by driving wheels. Switch should remain in "OFF" position for all normal driving and downhill operation. "HAND BRAKE" switch and "REAR AXLE LOAD" switch should never be "ON" at the same time.**

USE OF SERVICE BRAKES

Service brakes on these coaches are air-operated and are applied by depressing brake treadle located to the left of accelerator pedal. Varying degrees of brake application are obtained by varying the distance the treadle is depressed.

Bear in mind that the best braking can be obtained by making the initial brake application gradually to extent of brake required. Application pressure should then be reduced gradually as speed is reduced so that at end of stop only a slight pressure remains in the brake chambers.

DO NOT "fan" the brake treadle. This practice causes poor brake performance, wastes air pressure, and causes excessive wear on brake operating units and brake lining. "Fanning" does not increase brake line pressure, but decreases both reservoir and line pressure.

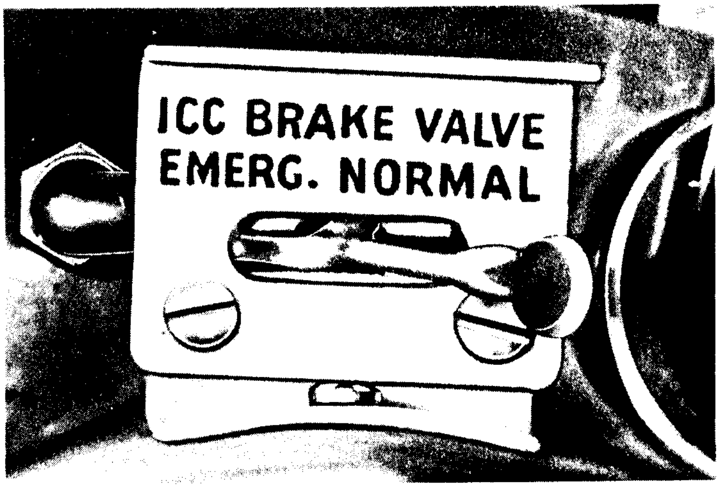
AIR PRESSURE IS IMPORTANT. Air pressure must be at least 70 pounds before air brakes can develop their full effectiveness. The operator should observe the air pressure gauge frequently. If "LOW AIR" tell-tale lights and buzzer sounds during operation, coach should be stopped and cause of air loss determined. Manual pressure on the treadle will not operate the brakes without air pressure.

USE OF HAND BRAKE

The hand brake switch at left of operator is used for normal parking and in emergency can be used to assist in stopping coach.

Switch activates a spring-brake device which applies brakes to the trailing axle. This is the correct method to use when parking coach. When hand brake switch is applied, the tell-tale "HAND-BRAKE" will light and alarm buzzer will sound when transmission is shifted into 1st speed. **Be sure hand brake switch is released before moving coach.**

USE OF ICC EMERGENCY BRAKE VALVE



For emergency only

The emergency brake valve is located just to the right of driver's seat on floor. The two-position valve lever must always be in "NORMAL" position for normal operation. When valve lever is placed into "EMERG" position, brakes on both rear axles are applied.

CAUTION

THIS "ICC BRAKE VALVE" IS FOR EMERGENCY USE ONLY WHEN OPERATOR IS UNABLE TO STOP COACH WITH THE USE OF SERVICE AND HAND BRAKES. APPLYING THE LEVER TO "EMERG" PRODUCES A QUICK AND SEVERE STOP. THIS SYSTEM MUST NEVER BE USED AS A PARKING BRAKE.

GENERAL USE OF LIGHTS

Whenever necessary to operate coach under conditions where exterior and interior lights are required, the following light switches must be on: "MARKER," "HEAD LAMPS," "STEP," and "SIGN." These will provide necessary exterior and interior "night" lights. For general interior illumination turn on the "GENERAL" switch. With switch in this position, individual passenger reading lights cannot be operated. To permit use of passenger reading lights, turn off "GENERAL" switch. "AISLE" switch can then be turned on to provide aisle and stairway lighting under "before-retiring" conditions. For late night or "retiring" conditions, turn off both "GENERAL" and "AISLE" switches if desired. The interior night lights (operated by "MARKER" switch) are blue. (Refer to next page for switch tabulation.)

OPERATION OF HEADLIGHTS AND FOG LIGHTS

With the "HEAD LAMPS" switch in on position, either headlights or fog lights can be selected with floor-mounted foot switch. When headlights are selected, the high and low beams can be selected by another foot-operated (dimmer) switch on the floor. When headlight high beam is selected, the tell-tale "HI BEAM" is illuminated. The lower beam is generally used on lighted highways or when approaching oncoming traffic.

EMERGENCY FLASHER

Emergency Flashing Signal Switch—Refer to "Emergency Conditions" on page 44.

IMPORTANT

If in case of emergency it becomes necessary to park coach on street or highway, day or night, emergency flasher lights must be turned on until flags, flare pots, or fuses are displayed. Refer to page 44 for use of "EMERG FLASHER" switch.

LIGHT SWITCHES

Light switches (pages 4 and 5) controlling exterior and interior lights are mounted on the left and right switch panels in front of operator. In some instances, a switch on the panels controls several lights other than those indicated by the marking opposite switch as indicated in following table.

Switch Name	Controls
STEP	Two-position switch—"off" to the left and "on" to the right. When switch is on, circuit to front door-operated switch is energized. When door is opened, the front step light (in lower dash panel), and left side lower deck front aisle light illuminates.
HEAD LAMPS	Two-position switch—"off" to the right and "on" to the left. With switch on, head lights or fog lights can be selected with floor-mounted foot switch as explained on preceding page.
MARKER	Two-position switch—"off" to the right and "on" to the left. With this switch in on position the following lights are illuminated: Front and rear corner marker lights Front and rear Michigan marker lights Lavatory night light Stairway, lower and upper deck night lights Lower deck night lights—one at front right and one at rear left on package rack rail Right and left tail lights License plate light Passenger reading lights **NOTE:** The switch "GENERAL" must be in off position before individual passenger light switches are operative. With "GENERAL" switch in on position, passenger lights cannot be turned on and off.
SIGN	Two-position switch—"off" to the right and "on" to the left. With switch in on position, front destination sign lights illuminate.
GENERAL	Two-position switch—"off" to the right and "on" to the left. With this switch on, the following lights illuminate: Lower and upper deck general illumination lights in package rack rails Lower and upper deck aisle lights Stairway lights (Refer to NOTE on page 22 regarding passenger reading lights)
AISLE	Two-position switch—"off" to the right and "on" to the left. With switch in on position, the following lights illuminate: Lower and upper deck aisle lights Stairway lights

OTHER LIGHT SWITCHES

Driver's Light Switch

Can be turned on or off at any time by positioning switch marked "DRIVER'S LIGHT," on control panel to left of operator (page 6).

Lavatory Lighting

When "MARKER" switch is on, the night light in lavatory is illuminated. When lavatory door is closed and latched, the ceiling light is illuminated.

Baggage Compartment Lights

Baggage compartment lights illuminate when entrance door is opened and step light switch is "ON."

Engine Compartment Lights

Two-position switch on engine compartment switch panel at rear (page 42).

Directional Signal Switch

The directional signal switch handle is located in steering column just under the steering wheel. This is a self-cancelling type switch, in that it returns to neutral position when the right- or left-hand turn is completed. With switch lever up, the front left turn signal light, the left side signal light and the rear left stop light flash on and off for a left turn. With lever down, similar right lights flash to indicate right turn. Center position turns signal lights off. With switch lever either down or up, the tell-tale "DIRECT" flashes, indicating that lights are operating.

Stop Lights

Right and left stop lights illuminate whenever brakes are applied. The tell-tale "STOP" illuminates signalling that lights are operating when brakes are applied.

OPERATION OF HEATING AND AIR CONDITIONING SYSTEM

Heating and air conditioning control switches used by the operator are mounted on control panel to left of operator (page 6). The air conditioning control switch is mounted under a hinged protective cover which must be lifted up before switch can be placed in the "ON" position. This switch is marked "AIR CONDITIONING" and is noted "DANGER—TURN ON AIR CONDITIONING ONLY WITH ENGINE IDLING." Vehicle must also be at a complete stop before switch is turned "ON." The "FAST IDLE" switch, under a hinged protective cover located forward of the air conditioning switch, is to be used for either air conditioning or heating when coach is at a rest stop or terminal. Guard on either switch must be left raised for switch to remain in "ON" position.

NOTE: The "FAST IDLE" switch must be turned "OFF" before attempting to move coach. Under no condition should the "FAST IDLE" switch be turned "ON" while coach is in motion. Brakes on trailing axle are automatically applied when this switch is in the "ON" position.

If "AC STOP" tell-tale (on left switch panel, page 4) lights and buzzer sounds while under way, **immediately** place "AIR CONDITIONING" control switch in "OFF" position. The buzzer will stop; however, the tell-tale will still light as long as the abnormal condition continues. When tell-tale goes out, stop the coach and, with engines idling, again place "AIR CONDITIONING" control switch in "ON" position. If tell-tale does not light again, air conditioning system may be considered operating satisfactorily. When tell-tale continues to light, place control switch in "OFF" position, proceed without air conditioning, and report the trouble.

Switch marked "BLOWER" has three positions, "HIGH," "LOW" and "OFF." Blowers are controlled by "RUN" position of "ENGINE CONTROL" switch and cannot be turned "ON" unless engine is running. "HIGH" is automatic during operation of air conditioning. "LOW" is preferred for heating with "HIGH" optional. For emergency conditions, see page 45.

The heating system "TEMP. RANGE" control is calibrated in degrees ranging from 68° to 78°. Other than the "TEMP. RANGE" and "BLOWER" switch, the heating system is completely automatic when the "ENGINE CONTROL" switch is in the "RUN" position. (Refer to NOTE at bottom of page 10.) The "HEAT ON" tell-tale in left switch panel (page 4) lights when heating water valves are open, and cycles on and off when heating water valves open and close, indicating normal operation.

OPERATOR'S HEAT AND COOLING CONTROL

Air flow into operator's compartment is controlled by a manually operated damper in duct near floor at left of operator (page 3). Heat can also be directed toward operator's feet by opening damper at right of accelerator pedal.

VENTILATION

If interior manual ventilation of the coach is required, front and rear half of each passenger side window can be opened approximately eight inches. Release catch on front or rear half; then slide forward half toward rear, or rearward half toward front. The forward half of entrance door and operator's side window may also be opened.

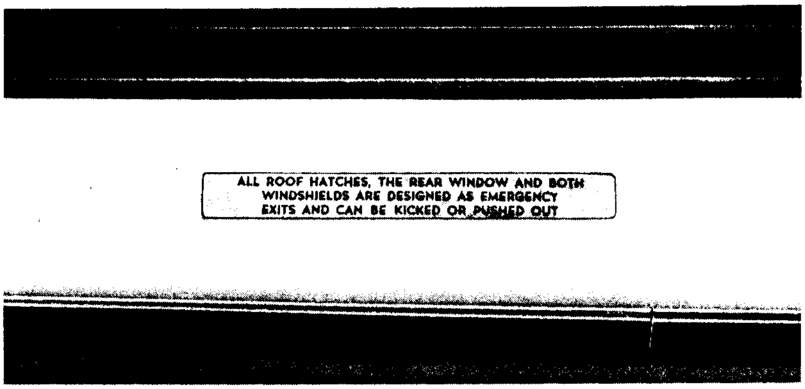
In addition to manual ventilation described above, outside air can be admitted at front of coach through a screened opening into defroster heater compartment. Manually operated cowl vent control (10, page 3) is located under switch panel at the right. Push control forward to open vent. Pull rearward to close. **Do not position control part way.**

IMPORTANT: When air conditioning or heating system is in operation, windows should not be opened. Adequate ventilation is furnished when these systems are operating correctly.

Outside air is admitted into the heating and cooling re-circulating air chamber through an opening on each side of body. One damper control is accessible inside coach behind rear lower seat at right side. The other damper is located on inside wall of lavatory just to rear of window. **During normal use of either the heating or cooling system, the air intakes should remain fully open to permit maximum circulation of outside air.**

For ventilation, the "BLOWER" switch may be turned to "HIGH" or "LOW" when engine is running.

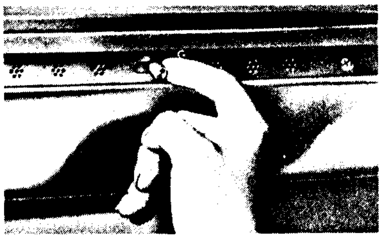
SKY LIGHT PANELS


ALL ROOF HATCHES, THE REAR WINDOW AND BOTH WINDSHIELDS ARE DESIGNED AS EMERGENCY EXITS AND CAN BE KICKED OR PUSHED OUT

For Emergency Exit Only

Sky light panels are installed in roof of coach. Panels are retained in roof openings with insert-type rubber retainer seals. In case of emergency, panels can be forced out of retainer from inside coach. Considerable effort is required, however, to force panel out. Decal on cove moulding at each side of sky light panel reads: "TO PROVIDE EMERGENCY EXIT, PUSH OUT."

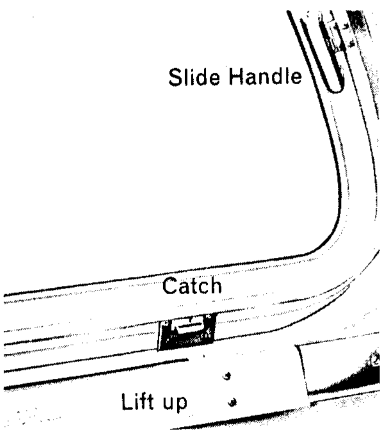
SIDE WINDOWS



Outside Air Vents

A series of ports under side windows at each passenger seat can be manually opened and closed by passenger. Sliding small post in the notch operates the ventilators. When ports are opened, outside air is directed toward passengers.

EMERGENCY RELEASE



Emergency Release

In emergency, entire side window sash can be opened for escape. Windows are hinged at top and can be opened at bottom by pulling up on release bar directly under window and pushing outward. At each seat, an instruction plate is attached to release bar. Plate reads: IN EMERGENCY, ALL SIDE WINDOWS CAN BE USED AS EXITS. JERK OUT AND UP ANYWHERE ON THIS MOULDING AND PUSH OUT ON WINDOW.

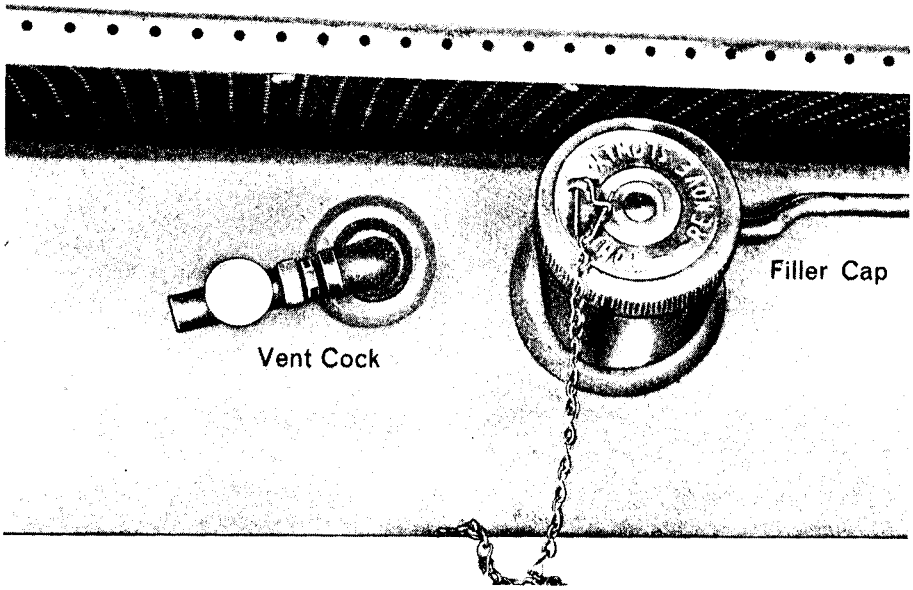
DOOR CONTROL

The passenger entrance door is manually operated by a control lever on windshield ledge to right of operator (page 3). Pull lever outward and completely toward driver to open door. Push lever toward door to close door.

With light switch "STEP" in "ON" position, front door operated switch is energized. When door is opened, the front step light and lower deck front aisle light on left side are illuminated.

Front door can be manually closed from the outside after control lever is pulled from latched open position. From outside, push door until closed and latched. Unlatch door from the outside by pushing in on button located under windshield to the right of insignia (page 34). After button releases latch, door can be pulled open from outside.

ENGINE COOLING SYSTEM



Radiator Filler for Engine

The engine has a cooling system, with a radiator, fan, filler cap, and drain points. The engine cooling system supplies hot water to the lower inlet of the heater core in heating compartment and to the defroster heater core at front end.

Engine cooling system radiator filler cap, installed in radiator top tank, is accessible through hinged access door. Access door is located in left engine compartment rear closure door. Door is held closed by a spring-loaded catch. To open access door, pull on tab at edge of door and swing door outward. Radiator vent cock is also accessible when this access door is opened.

Vent cock is a spring-loaded button type valve, provided as a safety feature to release steam or pressure from the system before the level cock or filler cap are opened. **Always press the button before opening either the filler cap or level cock.**

To open filler cap, turn cap counter-clockwise.

Water level cock is provided to determine when system is full during initial filling, and to indicate the need of adding water during or after operation. **Always press the vent cock button before opening level cock.**

REPLENISHING SYSTEM

ONE

Always press vent cock valve button before opening radiator filler cap.

TWO

Open radiator filler cap. With engines running, add water until it flows from open filler neck. Close filler cap and latch securely.

> **CAUTION**
>
> **If engine becomes overheated, do not add cold water immediately. Wait until boiling has stopped and engine cooled, then add water slowly with engine running.**

DRAINING COOLING SYSTEM

It will not normally be required of the operator to drain the cooling system. However, to prevent damage from freezing in case of engine failure and the system is not protected with antifreeze, cooling and heating system must be completely drained. Press vent cock button, then open radiator filler cap. Open drain cock and remove drain plugs as follows:

Radiator. Square head pipe plug at bottom of radiator. Left radiator door must be opened slightly for access to drain plug.

Cylinder Block. Drain cock on under side of engine cylinder block. Cock is accessible after engine closure doors are open.

Air Compressor. Hex-socket pipe plug in air compressor cylinder head, also accessible after engine closure doors are open.

Heater cores. Drain cock at bottom of each half of heater core in heating compartment. Drain cocks are accessible after opening heating compartment outer and inner doors.

Heater lines. Three drain cocks are provided in heating compartment for draining heater lines. Drain cocks are accessible after opening heating compartment outer door.

NOTE: When draining system to prevent freezing, also drain lavatory water supply tank and wash basin drain tank. Refer to page 40

FILLING EMPTY SYSTEM

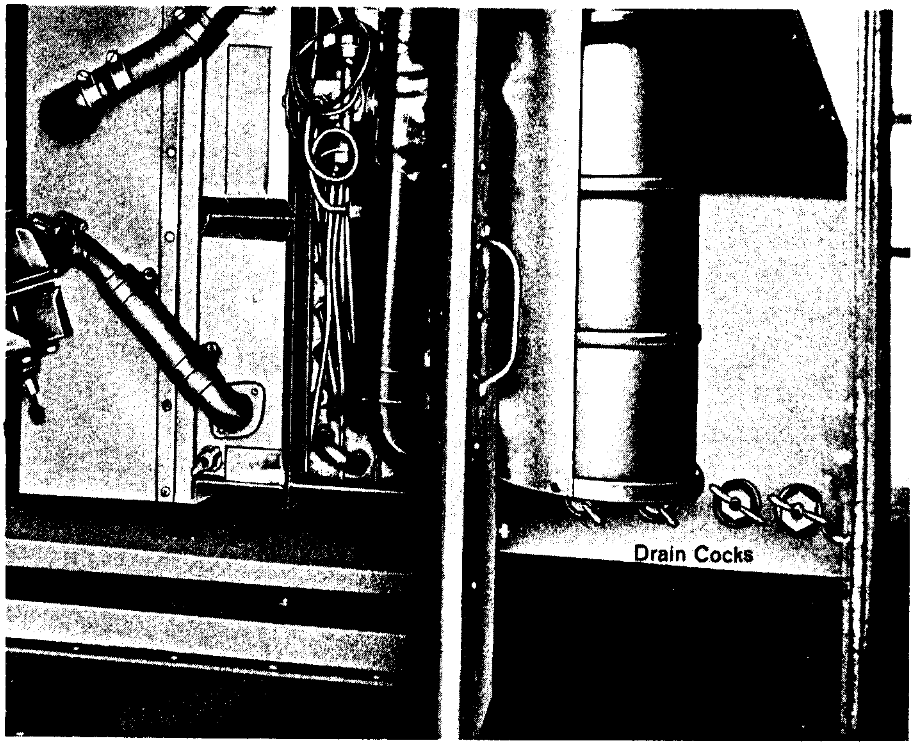
If the engine cooling system and heating system have been drained, refill the system as follows.

ONE
Make sure all drain cocks are closed and that all drain plugs are installed.

TWO
Open filler cap on radiator top tank.

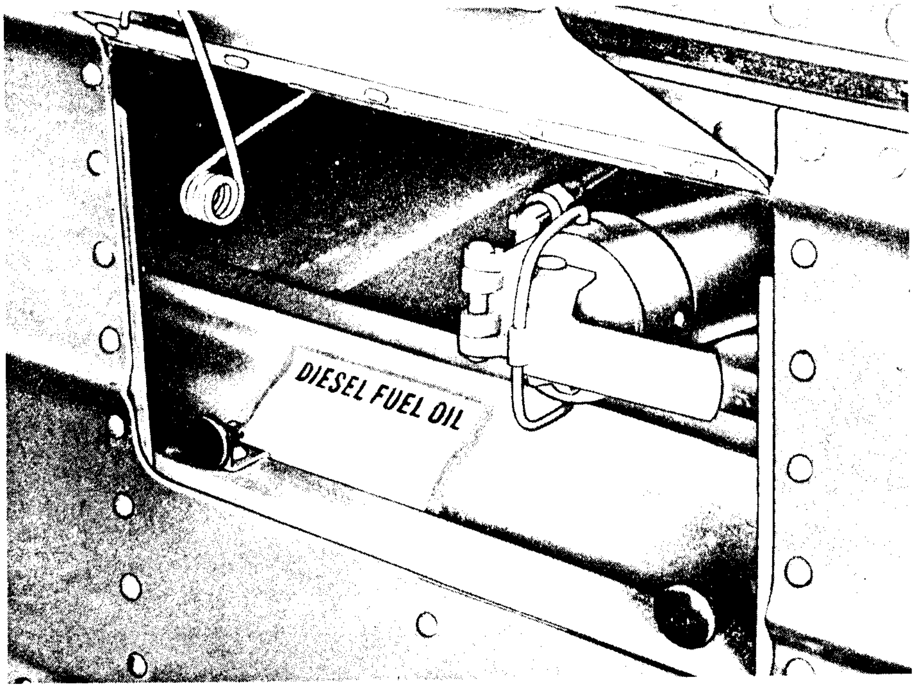
THREE
Add water through radiator tiller until water flows from filler neck.

FOUR
Hold "WATER BOOSTER PUMP" switch, located on apparatus box in engine compartment, in "ON" position or run engine at "FAST IDLE" which automatically operates water booster pump which will circulate water through the heating system and expel air from system. Add additional water to bring level up to level cock.



Heating System Drain Cocks

ENGINE FUEL OIL



Use Only Diesel Fuel Oil

The engine fuel oil tank filler neck is accessible through a small access door located in fuel tank compartment door on right side of vehicle, at rear of right front wheelhouse. To open access door, insert finger under projection at center bottom of door and pull out and up.

Fuel tank is equipped with a "Ventalarm" system. The "Ventalarm" whistle blows while tank is being filled, and stops blowing when tank is filled to capacity (180 gallons). Observe note on caution plate to "FILL ONLY WHILE WHISTLE BLOWS." Use only Diesel fuel of the correct grade. After filling, close filler cap and lock.

IMPORTANT:
Use of the correct fuel, and crankcase, transmission and power steering oil, is important. Follow maintenance department recommendations only.

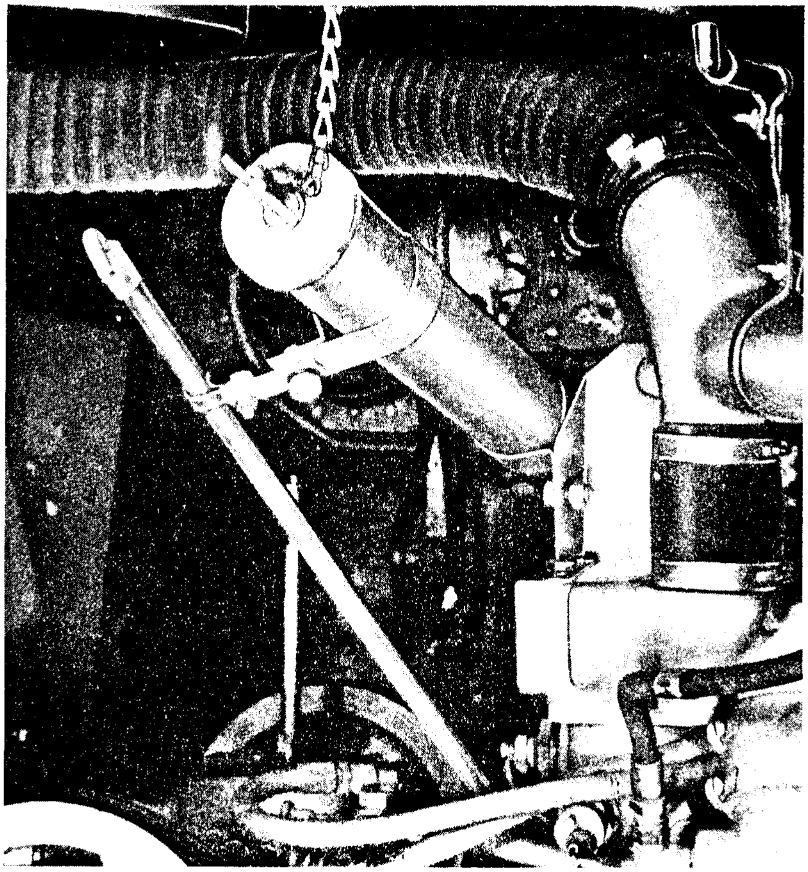
ENGINE CRANKCASE OIL

The engine crankcase oil filler and dipstick are accessible after opening the small door in the large center closure door.

Always check crankcase oil level with engine at normal operating temperature. Leave engine stopped for approximately three minutes before checking oil level. Remove dipstick and wipe with clean rag. Insert dipstick, then withdraw and note oil level. If down to "LOW" mark, add sufficient oil to bring level up to "FULL" mark.

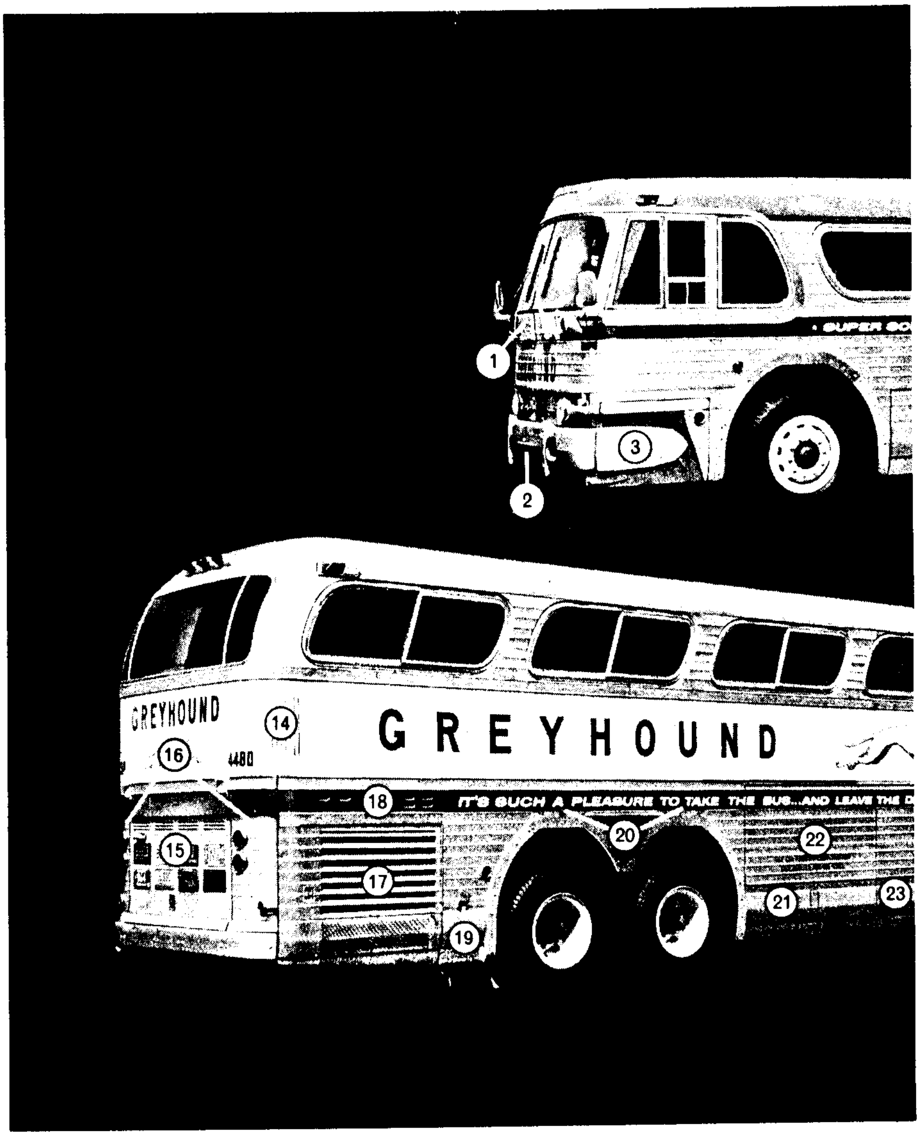
CAUTION:

Never attempt to check engine oil level or add oil to engine with engine running.

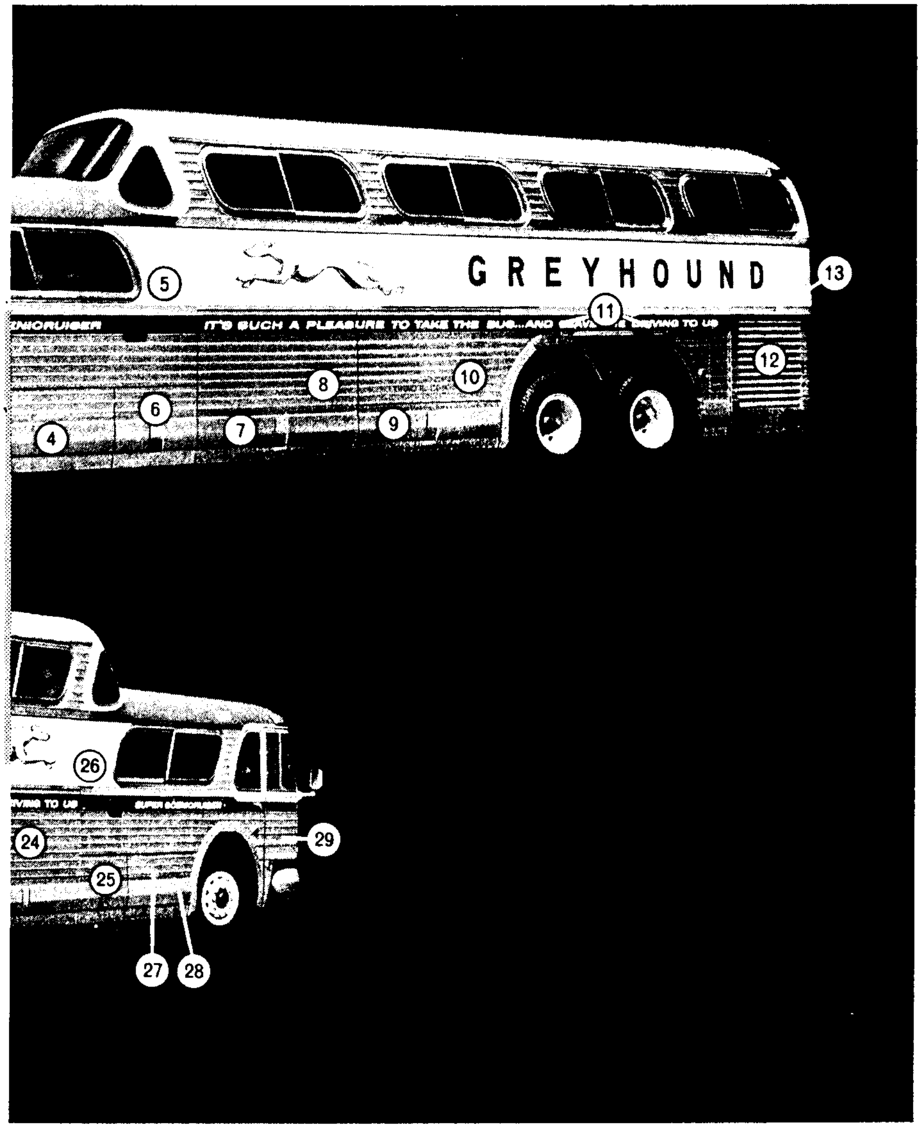


Oil Filler and Dipstick

EXTERIOR COMPARTMENTS



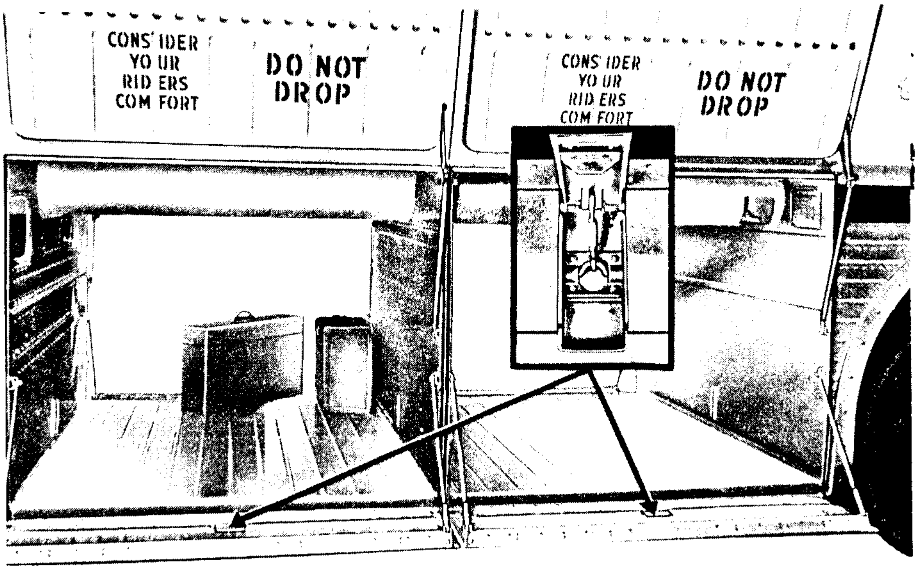
1 Entrance Door Release
2 Spare Tire Compartment
3 Front Inspection Compartment
4 Fuel Tank Compartment Door
5 Outside Air Intake Grille
6 Lavatory Tank Compartment Door
7 Front Baggage Compartment Left Lower Door
8 Front Baggage Compartment Left Upper Door
9 Rear Baggage Compartment Left Lower Door
10 Rear Baggage Compartment Left Upper Door
11 Left Package Compartment Doors
12 Engine Compartment Radiator Closure Door
13 Radiator Filler Door
14 Engine Air Intake
15 Engine Compartment Center Closure Door



16 Engine Compartment Corner Closure Panels
17 Engine Compartment Condenser Closure Door
18 Battery and Regulator Compartment Door
19 Air Conditioning Liquid Receiver Sight Glass
20 Right Package Compartment Doors
21 Rear Baggage Compartment Right Lower Door
22 Rear Baggage Compartment Right Upper Door
23 Front Baggage Compartment Right Lower Door
24 Front Baggage Compartment Right Upper Door
25 Heating Compartment Door
26 Outside Air Intake Grille
27 Fuel Tank Filler Access Door
28 Fuel Tank Compartment Door
29 Entrance Door

Exterior views shown on previous page identify all exterior compartment and access doors. Use of small access doors are explained at various points in the manual. Method of opening and closing main compartment doors follows.

BAGGAGE COMPARTMENTS


CONS IDER YO UR RID ERS COM FORT
DO NOT DROP
CONS IDER YO UR RID ERS COM FORT
DO NOT DROP

Baggage Compartments are Accessible from Either Side

Two large baggage compartments ahead of rear axles extend the width of the vehicle body, and are accessible through doors from either side. An upper and lower door is used at each side of both compartments. The lower door is hinged at the bottom and the upper door is hinged at the top. Flush type door lock and latch release mechanism is installed in the lower doors.

TO OPEN DOORS

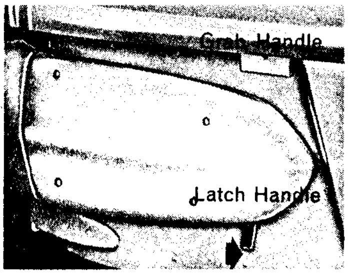
Insert fingers under bottom of latch handle and pull out and up on handle to unlatch lower door. Swing door down; flexible cables will support door in horizontal position. Lift upper door up and secure in raised position by inserting pin, secured to prop by chain, through holes in telescoping prop.

TO CLOSE DOORS

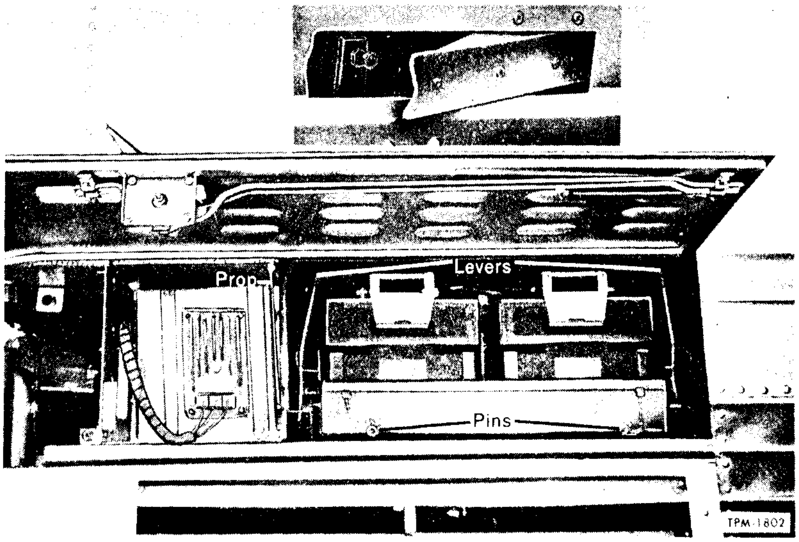
Remove pin from upper door prop and carefully lower upper door. DO NOT DROP DOOR TO CLOSED POSITION. Raise lower door to closed position with latch handle pulled out. While holding door in closed position, release and push down on latch to secure door.

FRONT INSPECTION COMPARTMENT

Tool compartment is located at left front corner of coach. Door latch handle extends below left bumperette. Pull latch handle to rear, then swing rear end of door out. To close door, hold latch handle to rear until door is closed, then release handle. Compartment is used for inspection of front end components.



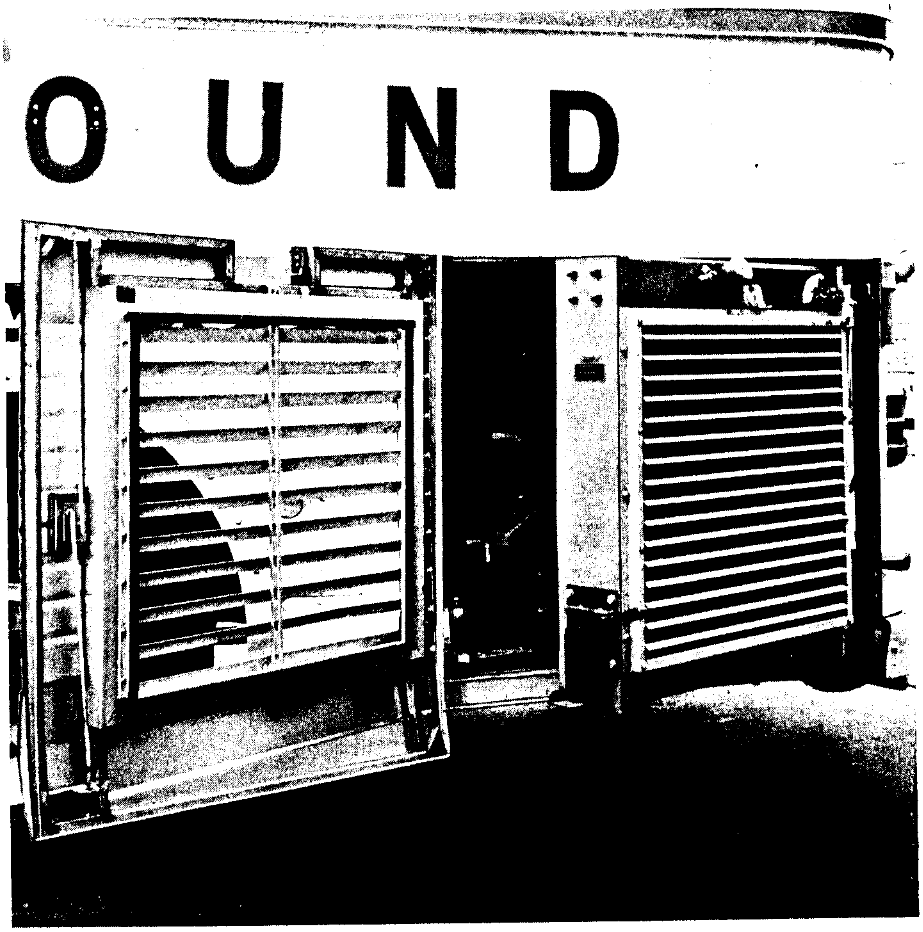
BATTERY AND REGULATOR COMPARTMENT



Battery Tray Rolls Out for Access to Cables

Battery and regulator compartment door is located above engine compartment right side closure door. A flush-type pull-out lever latch is located near rear end of door. Door is hinged at top and is held in open position by a prop. To unlatch door, pull out lever latch, then swing door up and position prop. To close door, release prop and engage in clip on door; hold lever latch out until door is closed, then push lever latch in.

4481
4481


OUND

ENGINE COMPARTMENT REAR CLOSURE DOOR

The center rear closure door of the engine compartment is hinged at the top and secured at the lower corners by a "T" lever operated latch. To open this door, the "T" lever is turned 90° and door lifted upwards. A center door prop is located on the vertical center tube. This prop should be inserted in the open end of the square tube of the engine compartment door in the raised position. This door must be opened for access to engine emergency stop solenoid and engine compartment control panel switches.

ENGINE COMPARTMENT CORNER PANELS

Left and right corner panels are permanently attached to the rear corner posts of the engine compartment. Tail light and stop lights are located in these panels.

ENGINE COMPARTMENT SIDE CLOSURE DOORS

Engine compartment has separate right and left side closure doors. To open doors at either side, turn "T" latch handles to disengage from brackets. Doors are vertically hinged at forward edge for easy access. When closing doors, make sure that latches securely engage brackets at bottom of door. Left side closure door must be opened for access to shutter, radiator, fan, fan drive, power steering and generator. Right side closure door when open exposes the air conditioning condenser coil.

SMALL PACKAGE COMPARTMENTS

Small package compartments extend from rear end of rear baggage compartment over rear wheelhousings to front end of engine compartment. Small package compartment at each side is accessible through two doors from outside and through a door on rear wall of rear baggage compartment. To open outside doors, a coin must be used. Light in compartment illuminates when either outside door is open. Striker plate on door contacts switch plunger to turn out light when door is closed.

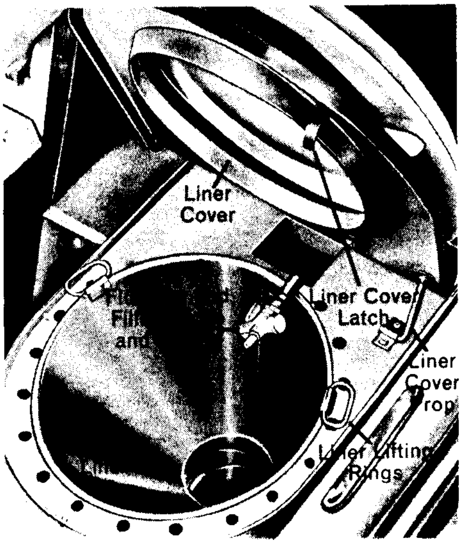
LAVATORY

Lavatory, containing a chemical toilet stool, wash basin with running water, waste paper can, and mirror, is located at rear end of lower deck on left side of coach. Lavatory compartment ventilation blower in base of stool runs at low speed when lavatory is not occupied. With lavatory occupied and door locked, lock bolt engages switch behind door latch striker plate which runs the ventilation blower at high speed. Closing and locking door also illuminates "OCCUPIED" sign on outside of door and illuminates ceiling lamp over mirror. Emergency bell and wash basin water pump switches are located on rear wall of compartment with adequately marked instruction plates. Lavatory compartment door can be locked from outside without operating the ventilator blower at high speed, using compartment door lock wrench in lock in door sill opposite the door handle.

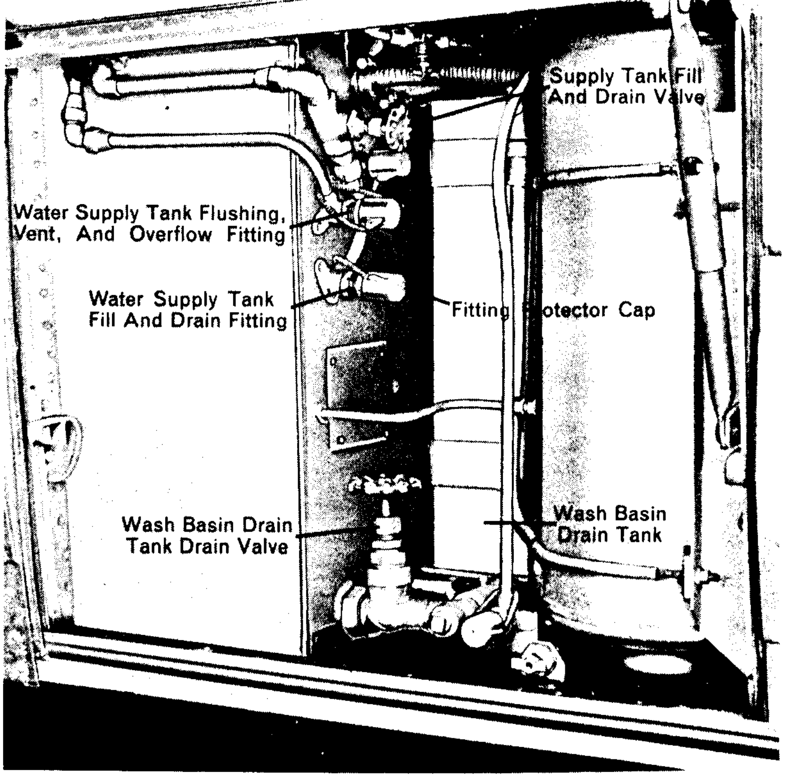
Wash basin water supply and drain tanks, and toilet stool waste tank filling, flushing, and drain pipes are located in compartment on left side of vehicle. Compartment door is hinged at top, and is secured with flush type latch as used in baggage compartment lower doors. A heater supply line is routed under the wash basin drain tank to prevent freezing. However, in the event of engine or heating system failure in freezing weather, **tanks** must be drained to prevent damage from freezing.

IMPORTANT

Servicing lavatory tanks must always be accomplished where proper facilities are available. Draining instructions included in this book are for use only in case of an emergency requiring draining of tanks.



Lift Liner to Drain Waste Tank


Supply Tank Fill And Drain Valve
Water Supply Tank Flushing, Vent, And Overflow Fitting
Water Supply Tank Fill And Drain Fitting
Fitting Protector Cap
Wash Basin Drain Tank Drain Valve
Wash Basin Drain Tank

Lavatory System Drain Valves

Open wash basin drain tank drain valve fully. This will allows drain water to flow into the toilet waste tank and out through waste tank drain. After draining, close valve and lower toilet waste tank liner.

Remove protector cap from the water supply tank fill and drain fitting, and from supply tank flushing, vent, and overflow fitting; then open water supply tank fill and drain valve. Leave valve open.

After emergency drain, lavatory system must be serviced at the earliest opportunity.

The toilet waste tank must be drained before draining wash basin drain tank. If at all possible, position coach over a receptacle or sewer inlet or other facilities to comply with local health regulations. Raise toilet seat and cover, then release liner cover latch. Lift liner cover and prop in raised position. Using the two lifting rings at top of liner, raise liner approximately six inches. This raises drain plug out of waste tank outlet. Temporarily block liner in raised position.

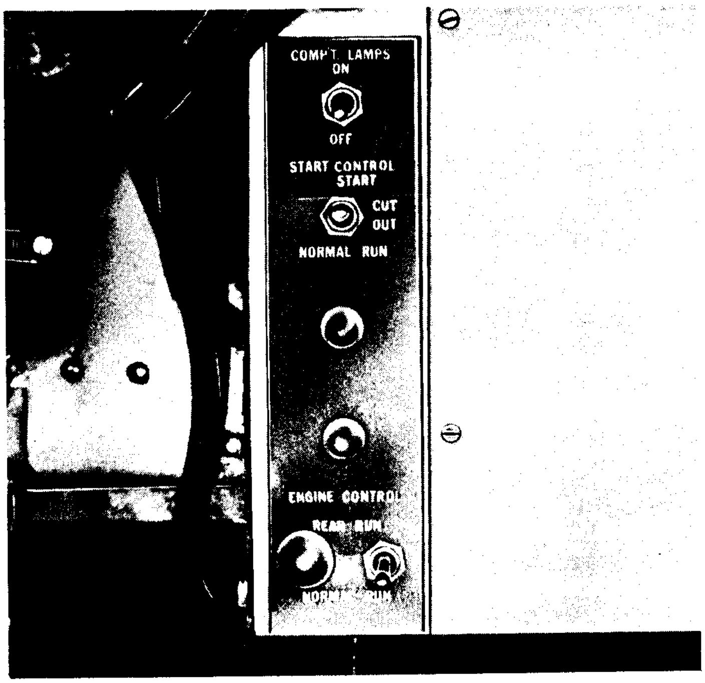
EMERGENCY CONDITIONS

OPERATION OF ENGINE AT REAR

Control and starter switches for operating engine at rear are mounted on panel in engine compartment. Open engine compartment rear closure door to gain access to switch panel. Engine can be started at rear for checking and testing purposes. Place "ENGINE CONTROL" switch in "RUN" position and "FAST IDLE" switch in "ON" position (on driver's control panel, page 6) before starting engine at rear.

"ENGINE CONTROL" SWITCH

The engine control switch has three positions. With switch lever straight out to "OFF," engine cannot be started. With lever to "REAR RUN" position, engine can be started at rear. Use "START" switch to start engine. With lever in "NORMAL RUN" position, engine can be started from operator's compartment only.



Switch Panel

TO PREVENT ACCIDENTAL STARTING AT FRONT

When working around engine, always place starter control switch lever in straight out position to "CUT-OUT." This prevents accidental turning over or starting engine from the front. AS A FURTHER PRECAUTION, place the engine control switch lever in straight out position to "OFF."

CAUTION:

Even with engine control switch in "OFF" position, it is still possible to crank engine by operating starter switch in engine compartment, but engine will not start. Before closing engine compartment door, always place engine control switch and engine starter control switch levers into "NORMAL RUN" positions.

ENGINE OVERHEATED

If engine becomes overheated during operation, the safety control relay alarm system will stop engine. The alarm buzzer will sound and the "HOT ENG." tell-tale will be illuminated. A glance at the temperature gauges will indicate engine is overheated. Stop the vehicle and turn engine control switch to "OFF." Check for cause of over-heating condition. Refer to pages 30 and 31 for instructions on filling cooling system. The safety control relay alarm system can be over-ruled as explained on page 15.

ENGINE OIL PRESSURE LOW

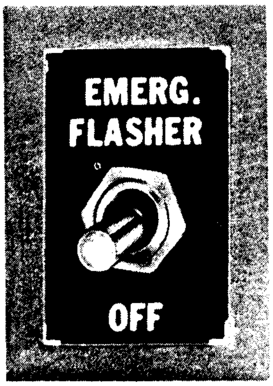
In event oil pressure drops below three pounds in engine during operation, the safety relay alarm system will stop engine. The alarm buzzer will sound and "LOW OIL" tell-tale will be illuminated. A glance at the oil pressure gauge will indicate engine has low oil pressure. Stop the vehicle and turn engine control switch to "OFF." Method of checking and replenishing engine oil is described on page 33. The safety control relay alarm system can be overruled as explained on page 15.

GENERATOR NOT CHARGING

Tell-tale marked "NO CHG" on left switch panel (page 4) illuminates when generator is not charging. Stop vehicle off road, shut off engine, and **turn off all electrical accessories** (except marker lights at night). Open engine compartment left side closure door (page 39) and check generator for any obvious failure. If necessary to continue driving coach to point of service with generator not charging, leave all electrical accessories except necessary driving lights turned off. See also "Blower Disconnect" on next page.

EMERGENCY FLASHING SIGNAL SYSTEM

All vehicles are equipped with a flashing signal system whereby all directional signal lights can be controlled to flash simultaneously in an emergency. System becomes operative when the "EMERG FLASHER" switch on dash panel at left of steering column is placed in "FLASHER" position. "DIRECT SIG" and "STOP LAMP" tell-tales flash when system is operating.



IMPORTANT:

If "DIRECT SIG" tell-tale fails to flash, it is an indication that two of the four front bulbs are burned out. If "STOP LAMP" tell-tale fails to flash, it indicates that one of the stop light bulbs is burned out.

CIRCUIT BREAKERS

All circuits in the electrical system are protected by circuit breakers, all of which are automatic reset type. Most of the circuit breakers are located on the junction panel at left of operator and in the engine compartment control box.

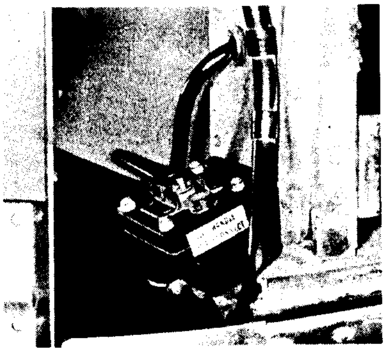
Whenever a short exists in a circuit protected by an automatic reset type circuit breaker, action of the circuit breaker opens the circuit, causing the protected lights to go out or the system to cease functioning. After the circuit breaker element cools, the circuit will again be closed. As long as the short exists, action of circuit breaker will continue to intermittently open and close the circuit until the switch controlling the defective circuit is turned off. When such a condition exists, the switch controlling the defective circuit should remain off until the cause of the short is located and corrected.

FUSES

In addition to protection provided by circuit breakers, the following units are further protected by line fuses, installed in the feed line near the protected unit: Speedometer drive unit (6-amp), lavatory ventilation blower motor (6-amp), lavatory wash basin water pump (9-amp, located under seat ahead of lavatory wall), and electric shaver receptacle (9-amp). Spare 9-amp fuses are carried on back of large button plug located on forward wall of lavatory tank compartment.

BATTERY DISCONNECT

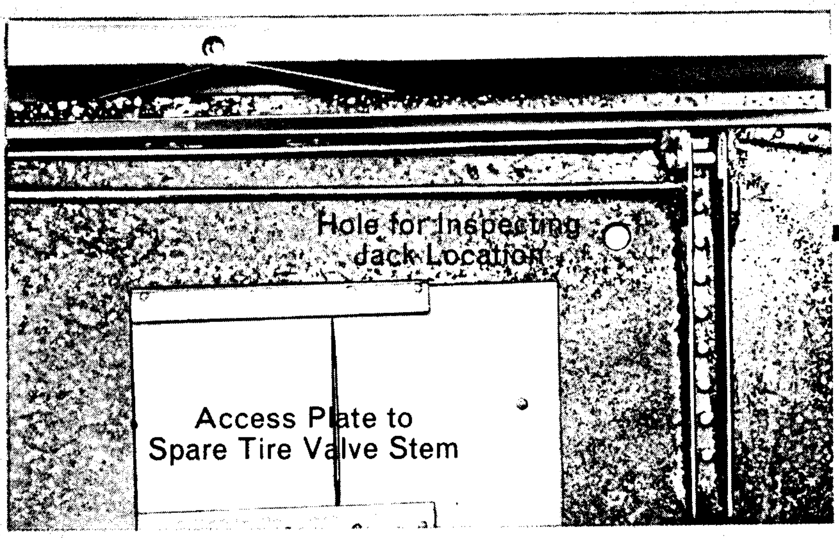
If necessary to disconnect batteries from electrical system, push up on handle of battery disconnect switch, which is located at rear of battery compartment. Access to switch is thru center engine door. To connect batteries, lower switch handle to horizontal position.



BLOWER DISCONNECT

To disconnect blower motors, remove large diameter wire from "Battery" terminal on end of relay control box, located on ceiling of right front baggage compartment.

CHANGING TIRES


Hole for Inspecting Jack Location
Access Plate to Spare Tire Valve Stem

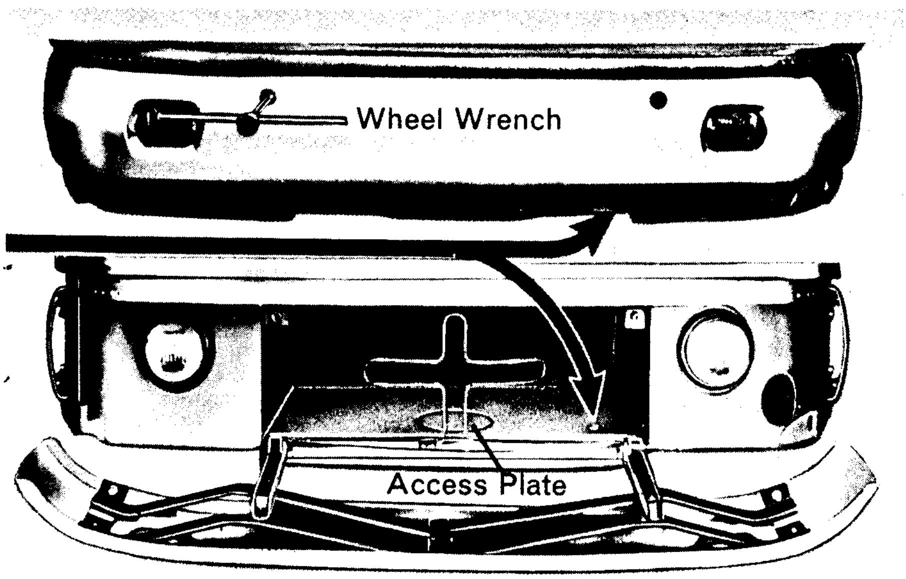
VIEW FROM BELOW COMP'T

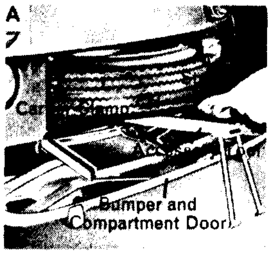
SPARE WHEEL AND TIRE CHANGING TOOLS

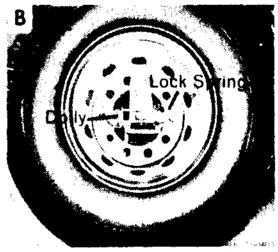
Tools required for changing wheel and tire are located in vehicle as follows: Jack handle, extension bar, wheel nut wrench, safety spacer, axle hook, wooden run-up block and accessory tool are stowed in the package compartment (pages 39 and 50) at right side of coach. Jack is located in spare tire compartment.

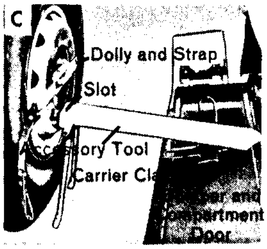
Spare Tire Compartment Is Behind Front Bumper

Spare wheel and tire is stowed in compartment behind front bumper. Small access door in floor of compartment can be opened to check and inflate spare tire without removing wheel and tire from compartment. Insert wheel nut wrench through openings in bumper and unscrew retaining bolts. Front bumper and compartment door may then be lowered as shown above.









SPARE WHEEL AND TIRE REMOVAL AND INSTALLATION

Swing carrier clamp down and position accessory tool as shown (view A above). Grasp dolly strap and pull wheel and tire SLOWLY forward until dolly wheel drops in accessory tool slot (view C above). Use extreme care to prevent wheel from jumping past slot. Turn wheel and tire one-quarter turn and lower as shown (view C above). Remove dolly by releasing two lock springs (view B above).

To install wheel and tire in compartment, perform the removal procedures in reverse sequence.

USE OF JACK AND RUN-UP BLOCK

To Change Outside Dual

Place wooden run-up block at inside tire, then drive vehicle onto block to raise outer dual off ground as shown at right. Fully apply hand brake, then proceed to change wheel and tire.

To Change Inner Dual

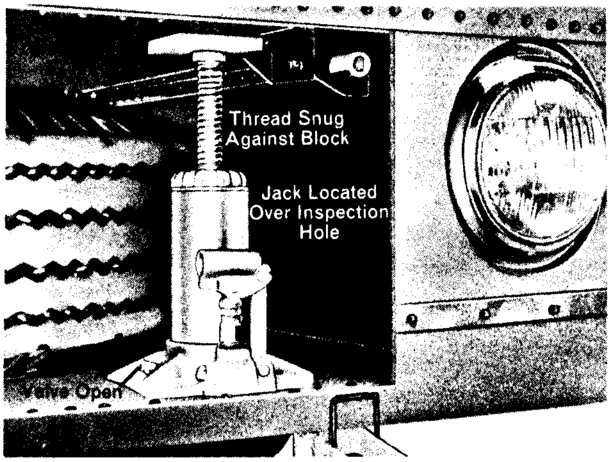
Fully apply hand brake. Install safety spacer and axle hook as shown below, then place jack directly under jack pad as shown. Raise vehicle, then proceed to change wheels and tires.

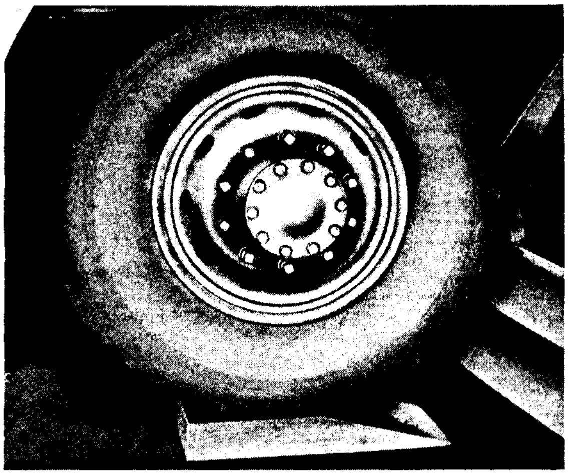
To Change Front Wheel and Tire

Place wooden run-up block in front of deflated tire. Drive vehicle onto block to allow positioning of jack under jack pad on suspension support (see inset). Fully apply hand brake, then raise vehicle. Remove run-up block and proceed to change wheel and tire.

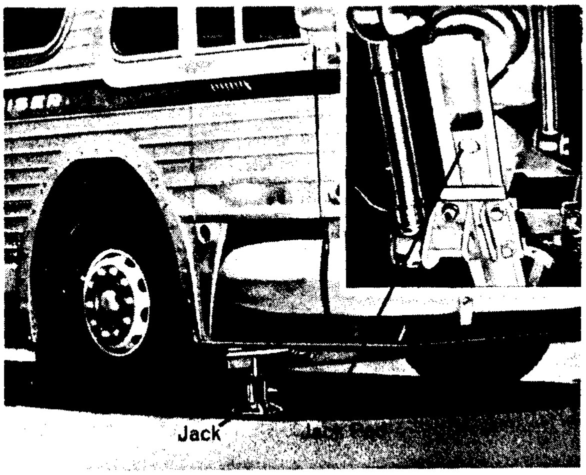
Use Accessory Tool for Lifting

To lower or raise wheel and tire on wheel hub, open accessory tool to full-length and position as shown at right, with wheel nut wrench under tool. Tool then can be used as a lift. NEVER lift tire without using this tool.

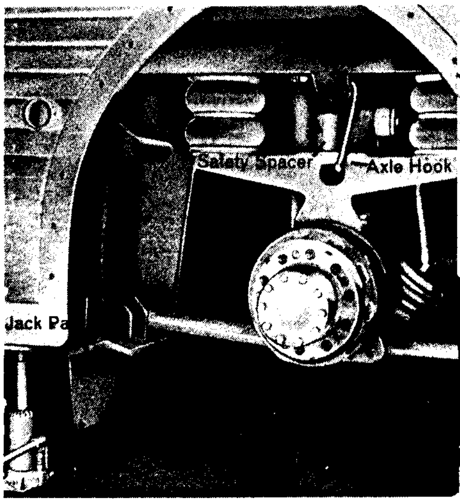




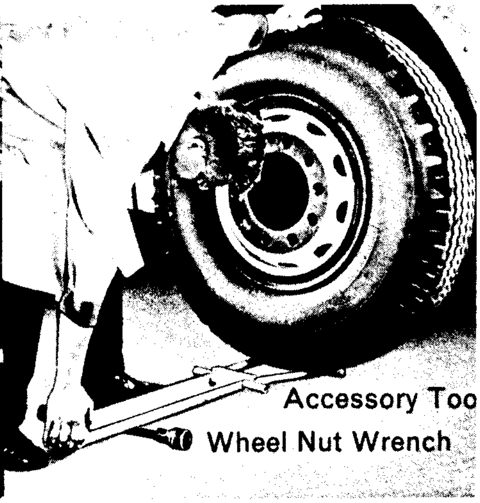
Use of
Run-Up Block



Use of
Jack
At Front

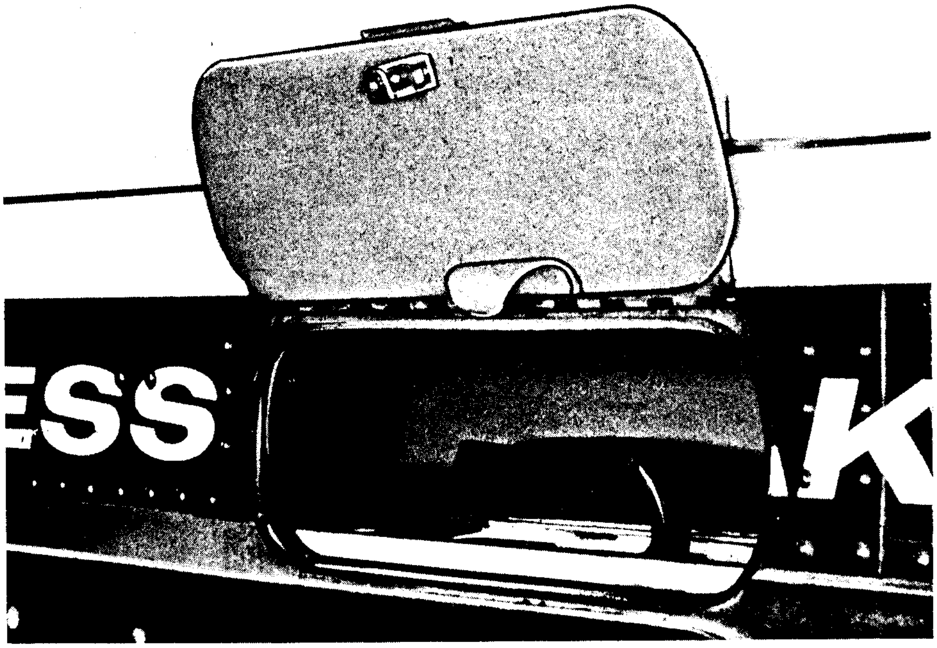


Use of Safety Spacer,
Hook, and Jack at Rear



Lifting Wheel and Tire

TOOLS AND SAFETY EQUIPMENT



Location of Tools.

Standard vehicle tools such as run-up block, accessory tool, jack handle, extension bar, wheel nut wrench, axle hook and safety spacer are located in a special tray in right forward package compartment above rear wheels (see above). Pot torches are in heater compartment.

The coach is equipped with two fire extinguishers. The Dugas extinguisher is mounted behind the glass door at right of operators seat. The other fire extinguisher is located in the heater compartment and is a liquid type primarily for use with tire fires. Safety flares and flags are carried in a tube at the left of the operator. Fire axe is mounted inside dash compartment. First aid kit is mounted in front of operator above left hand windshield.

DATA

Vehicle Height (maximum)	11 ft. 2 in.
Vehicle Width	96 inches
Tire Size	11.00:19
Fuel Tank Capacity	180 gal.
Cooling System Capacities engine	92 qt.
Engine Crankcase Capacity	22 qt.
Hydraulic Steering System Capacity	6 qt.
Rear Axle Capacity	13 qt.

When filling or adding oil to either crankcase, fill to "FULL" mark on dipstick (page 33).

ANTI-FREEZE CHART

Engine cooling system should be protected with anti-freeze solution for temperatures below 32°F. Only ethylene-glycol type anti-freeze should be used. The chart shown below includes both the engine cooling and heating systems:

Lowest Expected Temp. (Fahr.)	Qts. of Ethylene Glycol Required
+10°	23
0°	30½
−10°	35
−20°	39½
−30°	43½

LIGHT BULB DATA

(All Bulbs are Single Contact Unless Otherwise Noted)

Name	Quantity	Candle power	Trade No.
Corner Marker	4	6	89
Mich. Marker	6	3	67
Lavatory Night Light	1	3	67
Stairway, Lower and Upper Deck Night Lights	12	3	67 Blue
Night Lights in Package Rack Rails	2	3	67 Blue
Tail Lights	2	3	67
License Plate Light	1	6	89
Reading Lights	43	15	93
General Lights	32	15	93
Aisle Lights	12	3	67
Stairway Lights	4	6	89
Front Step Light	1	21	1141
°Destination Sign Lights	3	15	94
Driver's Light	1	15	93
Front Turn Signal Light	2	21	1141
Rear Stop Light	2	21	1141
Lavatory Ceiling Light	1	21	1141
Lavatory Occupied Sign	2	2	57
Baggage Compartment Lights	8	15	93
Engine Compartment Lights	4	15	93
Tell-tale Lights	11	2	57
Gauge Panel Lights	6	3	67
Head Lights	2	45-50 Watt	4430
Fog Lights	2	32	1011
Switch Panel Lights	2	2	57
Axle-Loaded Tell-tale	1	21	1141

°Double contact

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